



PDHonline Course R127 (2 PDH)

The Proper Use of Virginia Professional Seals

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The Proper Use of Virginia Professional Seals

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Introduction and Overview

In order to properly use professional seals in Virginia, licensed professionals are required to be familiar with specific practice regulations. These regulations are contained in the collection of Virginia statues known as the *Code of Virginia*. The Code of Virginia is subdivided into Titles, Chapters, and Articles. The primary laws in which we have interest, *i.e.*, that deal with sealing and certification, are contained in Title 54.1, Chapter 4, *Architects, Engineers, Surveyors, Landscape Architects and Interior Designers* and the following specific Articles:

1. Article 1, *Architects, Engineers, Surveyors, and Landscape Architects*
2. Article 2, *Interior Designers*



Virginia State House

A collection of laws known as the *Virginia Administrative Code (VAC)*, add detail, and are intended to implement the Code of Virginia Titles. The Articles listed above are supplemented by Title 18, Agency 10, Chapter 20 of the VAC.

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 Chapter sections and Code rules; only reference numbers will be used.



The technical professions of Architecture, Professional Engineering, Surveying, Landscape Architecture, and Interior Design are licensed under the Department of Professional and Occupational Regulation (DPOR) of the

Virginia Department of Commerce. Before the advent of the World Wide Web the DPOR utilized two quarterly mailed publications, *de-cla-r-a-tive* and **DIMENSIONS**, to officially disseminate information related to the regulated professions. Official information is now periodically published over the Internet. It 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 Virginia laws and several past DPOR newsletters that pertain to the use of professional seals. The course is not intended as a replacement or substitution for official information sources regarding the laws, rules, and regulations governing the use of professional seals in Virginia. 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.

While some States have separate Chapters and Administrative Code sections for each regulated professions' proper seal use, the Commonwealth has a single Chapter and Code that is applicable to all. The design professions are regulated by a single Board and the prescribed acceptable methods of professional seal use are consistent among all of the Virginia technical professions. Unlike some States, there are essentially no distinctions between the professions with regard to seal use. In fact, seal protocols are so universal that the subject can be collectively covered within this course with only minor practice exceptions noted.

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 Board is 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.



History¹

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.

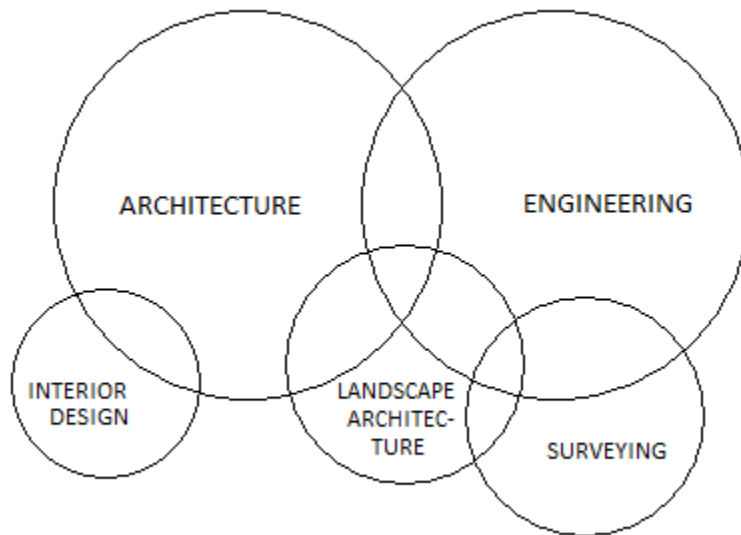


The necessity for professional seals springs directly from laws regulating the practice of the various professions. The State of Wyoming was the first to enact an engineering registration law in 1907 and was ironically, the last State, in 1951, to enact a law regulating the practice of Architecture. By 1952 all the States and territories had adopted licensing laws of some description regarding the primary technical design professions. Virginia's technical professions underwent initial regulation with the creation of the State Board of Architects, Engineers, and Land Surveyors in 1920. Inclusion of Landscape Architecture in the Code of Virginia is relatively new, occurring in 1974. The most recent regulated profession is that of Interior Design; the Certified Interior Designer law was first enacted in 1990.² The Board's initialism is now APELSCIDLA.

Professional Practice Overlap

Virginia 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 allowed, 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.



For now, let's begin by an examination of 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 actions of the various courts and code enforcement officials quickly reveals a difference in what is interpreted as allowable legal practice between the two. Individual State statutory definitions and court rulings 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. Virginia law falls in the former category, 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, however, conjecture. 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 Engineering



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.*³

To bolster the defense for the similarity of the two professions, the concept and term *Architectural Engineering* as a separate discipline has been offered. This term is firmly established as evidenced by the existence of Architectural Engineering curricula at several prominent technical schools and the creation of an optional Architectural Engineering format on the nationally administered National Council of Examiners for Engineering and Surveying (NCEES) exam.

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.⁴ Ironically, even though the NCARB is incorporated in the State of Iowa, an Iowa joint committee of the State's Regulating Boards of Architects and Engineers published an opinion that each building project is unique, and therefore, limiting the assignment of a managing/coordinating design professional to a specific occupation, was not relevant.⁵

The two professions are often coupled together in legal passages by the phrase “*architect or professional engineer*” [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 paraphrased content from the Uniform State Building Code⁶:

When determined necessary by the building official, [building] construction documents shall be sealed by the Registered Design Professional (RDP) responsible for the design. [RDP is defined as] an architect or professional engineer, licensed to practice architecture or engineering, as defined under Section 54.1-400 of the Code of Virginia.

Incidental Practice Activities

Incidental Practice Provisions Common to the Professions

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. The paraphrased legal reference is⁷:

Provided that competence exists to do so, a professional may practice other professions to the extent that the practice of professional engineering and land surveying by a licensed architect is incidental to what is considered primarily an architectural undertaking and, the practice of architecture and land surveying by a licensed professional engineer is incidental to what is considered primarily an engineering undertaking.

The determination of whether work is incidental to the primary project objective is necessarily subjective. A method using a “case-by-case” determination was suggested in a 1972 legal opinion by the Virginia Attorney General.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. None of the current civil engineering projects which are present today would be possible without the benefit of *engineering surveys*, this specific term being unfortunately absent in the statutory definition of Engineering.

The acceptability of incidental surveying was brought forth in an official Attorney General opinion which considered it obvious that the laying out and graphic depiction of property sizes, boundaries, and shapes could be, in some cases, necessary toward the successful completion of certain engineering endeavors.⁸



Engineering Incidental to the Practice of Surveying

Land Surveyors in Virginia are allowed reasonable latitude with regards to what could normally be considered engineering activities. Specifically:

“The practice of land surveying . . . also includes the planning of land and subdivisions thereof . . . including, but not limited to the preparation of incidental plans and profiles for roads, streets and sidewalks, grading, drainage on the surface, culverts and erosion control measures . . .”⁹

After the administration of an additional examination by the Board, the Land Surveyor may also prepare plats, plans, and profiles for storm drainage systems, sanitary sewer extensions, and water line extensions within subdivisions.¹⁰ No statutory detail of the additional examination requirements are provided. Further statutory clarification prohibits stand alone “engineering design and the preparation” by the Land Surveyors “of plans and specifications for construction” and the exclusion of pressure main, mechanical, structural, and electrical system design.¹⁰

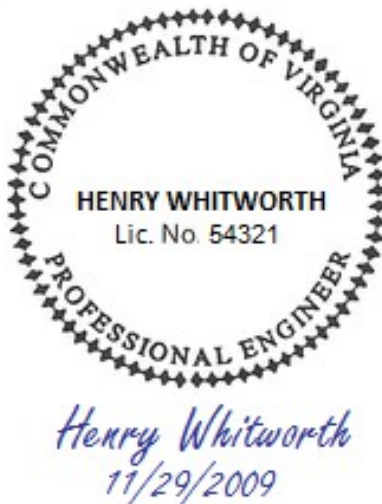
Architecture Incidental to the Practice of Interior Design

To the extent that the interior space protection of the public with regards to health, safety, and welfare is provided, Certified Interior Designers' services legally embody the preparation of documents for non-load bearing construction, fixtures, equipment, and furnishings.⁹

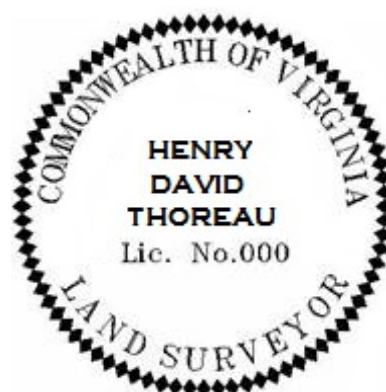
Sealing and Certification

The purpose of certification of technical documents is to attest to the preparation of the documents by the regulant or under the regulant's direct control and personal supervision. Merely reviewing the work prepared by an unlicensed or uncertified non-employee does not constitute *direct control and personal supervision*. Certification also indicates the professional's acceptance of responsibility for the work shown thereon.

Although often used interchangeably, the terms sealing and certification are not synonymous. A seal is only one component of a legitimate certification. Two additional components, an original signature and a date, are also required. The figure¹¹ below is an example of a proper professional certification:



The outside diameter of the seal is 2 inches. The number is the last 5 digits as they appear on the licensee's certificate, with any leading zeros omitted. The approved composition and style of the other professional seals are shown below:



Understood Proper Use of the Professional Seals

We have touched on the subject of the proper and allowed use of seals in our discussion of practice overlap and incidental activities. While there is limited legal verbiage specifically defining the practice scope of the five professions, the intent that they be separate and distinct is abundantly apparent in Board guidance, an example of which follows:

“ . . . a landscape architect may enter into a contract with a client to design a . . . building, but the architectural portions must be designed by a licensed architect . . . [and] the engineering systems [designed] by a professional engineer . . . ”¹²

This fact can also be inferred from the references in the Chapter and Rule to the need of the licensed professional to limit activities to those areas of self-evaluated professional competency. The paraphrased Rule¹³ is:

Regulants shall restrict their services to those phases of assigned projects for which they are qualified. Phases requiring education and experience outside of the primary professional's field of competence shall be the responsibility of licensed or certified associates, consultants, or employees.

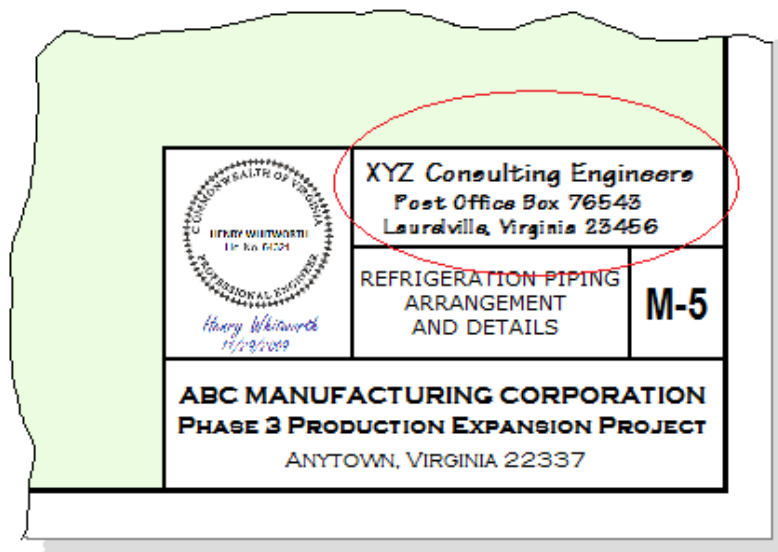
Certificate of Authority Seal/Professional Corporation Seal

The corporate practice of the technical professions by a professional corporation is allowed as long as the compositional make-up of the business entity meets the requirements specified in the laws. Business entities are not eligible for licensure under the respective professional practice Chapter; it is intended for individual practitioners. Like many States, a *certificate of authority* is required to undertake professional practice as a professional corporation. Unlike some States, the application of a certificate of authorization seal or a professional corporation seal on technical documents filed for public record is not required in Virginia. For this reason, the actual details of the registration of a business entity will not be covered here. Please note however, regardless of practice profession, business size, or legal form of business, all business entities must formally register to provide professional services.



Professional's Firm Name

A frequent offense associated with the creation of final technical documents is the failure of the regulant to indicate the regulant's name (or firm name) and full address on each sheet of drawings. In addition to the seal and signature of the responsible licensed professional, all plans, drawings, or plats and maps prepared by a professional shall bear the professional's name or firm name. The firm's address and project name must also be shown.¹⁴ In the example below, ABC Manufacturing has contracted to XYZ Consulting for professional design services:



Drawing Classifications



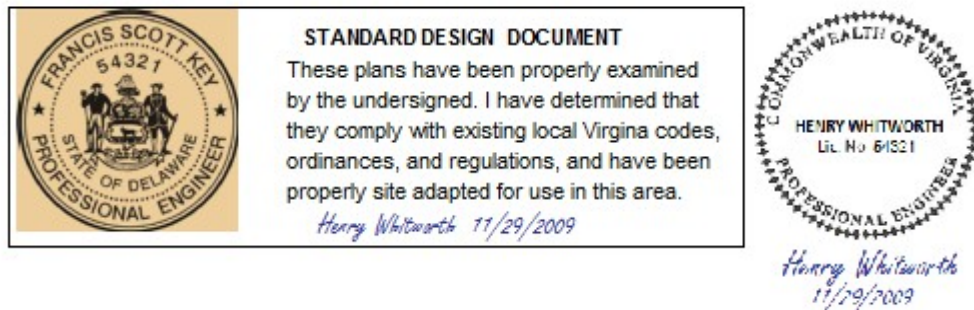
Construction documents are usually composed of working drawings, specifications, and occasionally other contract documents such as Shop Drawings and Standard Design Plans. A working drawing, or design drawing, is characterized by the exhibition of a total result achieved by the integration of various elements and systems; they are prepared under the direct control and personal supervision 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 the regulant's direct control and personal supervision. They must be reviewed by the Virginia licensed professional responsible for the project in which they form a part.¹⁵ 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. When they bear the certification of a professional licensed in another state, a requirement for special certification by a Virginia regulant is required¹⁵, an example of which could be:



Where Should Seals be Placed?

Each original sheet of a final document must bear a seal, signature, and certification date for each regulated technical design discipline associated with the project. The original cover sheet of plans, plats, documents, sketches, technical reports, and specifications must bear a seal, signature, and certification date. A specific location for the signature relative to the seal is not addressed in the regulations. Placing the signature and date across the seal is customary. A list of all drawing sheets or plats bearing certification and forming a final document must be provided on the cover sheet.¹⁴

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. In projects where the work performed is “incidental”, a single professional can assume responsibility for all of the work.

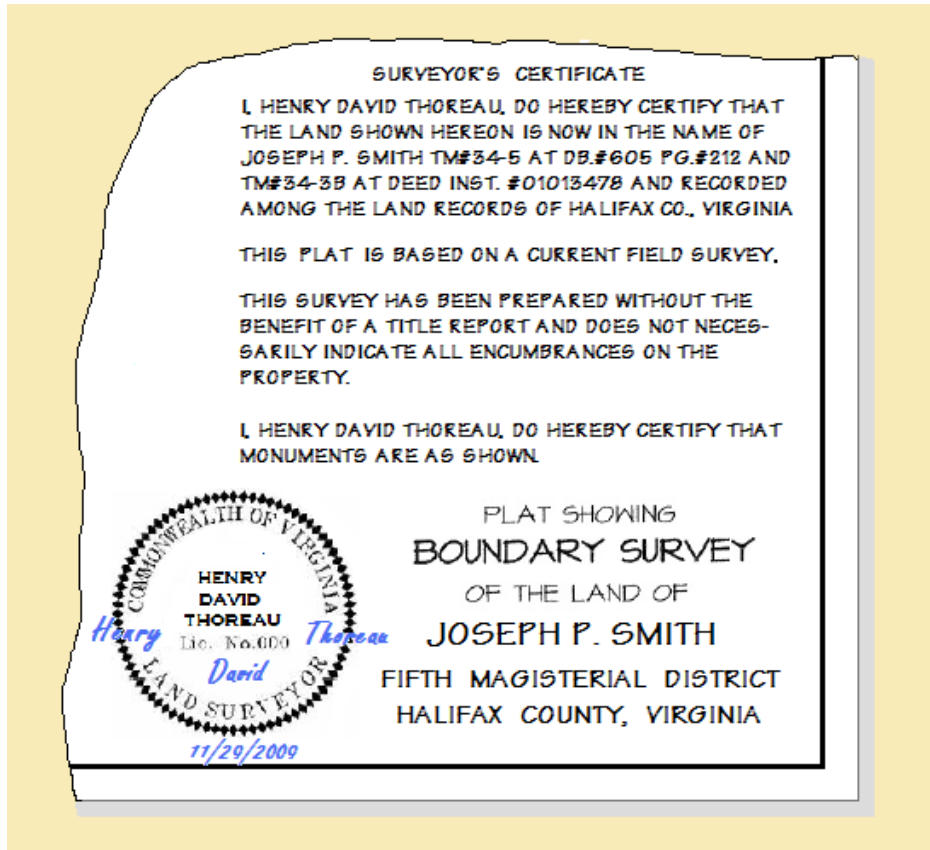
Qualified and Unique Certifications

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 statutes.¹⁶ Included in the standards are the requirements for additional certification statements. Historically specific certification statements attesting to the fact that surveys and resulting plats adhered to the minimum technical standards were required. Of late, the normal certification comprised of the seal, signature and date, without any additional qualification, is legally considered sufficient acknowledgment of adherence to established minimum practice standards. Nevertheless, there exists

other certifying qualifications. The statements vary depending on the type of survey performed and the methodology employed. As an example, a limited portion of a plat for a hypothetical land boundary survey might look something like:



Either of the following statements is required for surveys determining topography¹⁷:

This topographic map of the Warsaw Industrial Park was completed under the direct and responsible charge of licensed Land Surveyor Henry David Thoreau from an actual ground survey made under my supervision; that the original data was obtained on October 16, 2009; and that this plat, map, or digital geospatial data including metadata meets minimum accuracy standards unless otherwise noted.

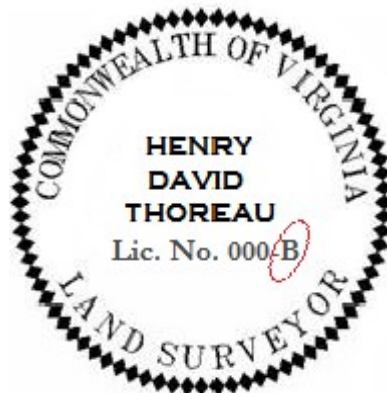
Or if applicable, this statement:

This topographic map of the Warsaw Industrial Park was completed under the direct and responsible charge of Licensed Photogrammetrist Henry David Thoreau from an airborne survey made under my supervision; that the imagery was obtained on October 16, 2009; and that this plat, map, or digital geospatial data including metadata meets minimum accuracy standards unless otherwise noted.

Virginia 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.

The Specialized Branches of Land Surveying

Specialized branches of land surveying have evolved. A *Licensed Land Surveyor B* is an individual that holds a Land Surveyor's license and who has also successfully passed college level courses in hydrology and hydraulics and an additional examination administered by the Board. These licensees are legally permitted to prepare plats, plans, and profiles for roads, storm drainage systems, sanitary sewer extensions, and water line extensions within subdivisions. Technical documents embodying such work must have in evidence the seal shown here:



Photogrammetry is the process of making precise measurements, and thereby maps or scale drawings, from aerial photographs. The Commonwealth of Virginia defines a *Surveyor Photogrammetrist* as an individual who uses photogrammetry in the determination of topography, contours or location of plane area measurement features using photogrammetric methods or similar remote sensing methods. The proper seal for this professional is shown here:



Licensure as a Land Surveyor is not prerequisite to licensure as a Surveyor Photogrammetrist. However, the legally accepted content of work products of an individual who is solely licensed as a Photogrammetrist has limitations. The depiction of any property monumentation or property metes and bounds, or the relational measurement of physical improvements to property lines or bounds for the purposes of conveyance or hydrology is restricted. In the event any such informational content is incidentally included, the Surveyor Photogrammetrist is required to include the following notification on documents where applicable:

NOTE: ANY DETERMINATION OF TOPOGRAPHY OR CONTOURS, OR ANY DEPICTION OF PHYSICAL IMPROVEMENTS, PROPERTY LINES OR BOUNDARIES IS FOR GENERAL INFORMATION ONLY AND SHALL NOT BE USED FOR THE DESIGN, MODIFICATION, OR CONSTRUCTION OF IMPROVEMENTS TO REAL PROPERTY OR FOR FLOOD PLAIN DETERMINATION.

A Land Surveyor is not prohibited from conducting photogrammetric surveys.¹⁸

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 control and personal supervision. While this "adoption" provision initially appears to run counter to the NCEES model rules of practice¹⁹, 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.²⁰ 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.²¹ Application of the seal is a testament that a thorough review of the adoptive work has been conducted verifying equivalent professional accomplishment.¹⁴

The first legally acceptable adoptive case involves the absence of a document's original author. If this individual is no longer in the employ of the adopting professional or is otherwise unable to certify completed professional work, then certification can be made by a successor professional.¹⁴

With the full knowledge of the original author and receipt of written consent, a successor professional may certify designs, drawings, and specifications, or replicate like designs, drawings, and specifications of another professional.²¹

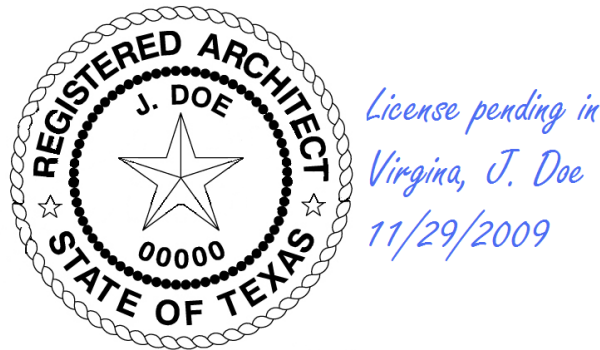
Non-mandatory Guidelines

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^{22, 23} 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 - Use of non-Virginia Seal

Many States grant temporary licensure to persons who hold a license in another State. This can entail the use of the a 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 Virginia; however, APELSCIDLA maintains a provision for interim professional practice after a completed application for licensure in Virginia has been received by the Board. This temporary practice is contingent upon a self-evaluation of professional qualification by the applicant.²⁴ In such cases, all plans, specifications, plats, and reports issued would be affixed with the practitioner's native jurisdiction professional seal with the written qualifying statement²⁵,



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.

Legally, incomplete or interim documents need not be sealed, signed, or dated.¹⁴ This notwithstanding, a document without benefit of a date of issuance or revision runs counter to sensible business protocol. By law, plans, documents, and sketches, whether advance or preliminary copies, must be clearly labeled as such.¹⁴ A licensed design professional should certify submissions to public review agencies even understanding that minor review comments may generate later revisions.¹²

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 may be 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.

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.

Professional Seals

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 recommended. Today, of course, seals graphically generated via computer software are the norm. Computer generated seals may be used on final and certified copies provided that a handwritten signature is placed adjacent to the seal and the date is written next to the signature.

Secure Electronic Certification

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Secure electronic certification of documents is permitted in lieu of the physical seal, signature, and date when certain criteria are satisfied.¹⁴ To be secure, the viewable only formatted document certification must be ²⁶ :

1. Uniquely identifiable by the professional;
2. Verifiable under the professional's direct and sole control;
3. Linkable to the document in such a manner as to visually display unauthorized changes made subsequent to certification;
4. Provisionally capable of automatic de-certification in the event of unauthorized changes to the document.

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 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.

Exemptions from Sealing

Exemptions are specific situations that are granted relief from established law. An extensive list of technical and construction related activities, systems, and structures that are exempt from the professional licensing statues, and thereby sealing, are enumerated.¹⁵ Any design of unique structural elements or buildings classified as high hazard use are not exempt. While it may be important for licensed or certified 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.¹⁴ Let's look a few of the privileges afforded certain vocations.

The Certified Professions

Nurserymen, landscape designers, land planners, landscape gardeners, golf course designers, turf maintenance specialists, and similar occupations are not restricted from performing landscape architectural activities. They cannot, however, hold themselves out as, or use the title of *Landscape Architect* unless so licensed.²⁷

Anyone is allowed to perform or offer services that constitute interior design. However, no person may hold themselves out as, or use the title of *Certified Interior Designer* unless they have been so certified.²⁸

Professional's Employees and Government Employees

An exemption applies to certain employees who provide technical support services. These include employees of licensed professionals and employees of the federal government. Also included are a specific group of regular, full-time, salaried employees of the Commonwealth or any political

subdivision of the Commonwealth. Persons acting as employees of, or agents for, a public body may also be exempt from the licensing laws if their work consists of drafting permits, reviewing plans, or inspecting facilities for compliance with a particular code or standard. In order to qualify for this exemption these individuals must not furnish advisory services for compensation to the public in connection with these technical activities.⁷

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 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. This includes private sector employees who furnish advisory services for compensation to the public.⁷ Currently, the Virginia Department of Environmental Quality (DEQ) requires that the

design, permitting, and construction of private industry wastewater treatment facilities and certain solid waste control measures be carried out under the responsible charge of a Professional Engineer.^{29, 30}

Federally mandated oil spill control and countermeasure plans for private industrial facilities must be sealed by a Professional Engineer.

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 Virginia 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 Virginia 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 Virginia for document certification began in the first quarter of the twentieth century.
2. Document sealing and certification in Virginia is strictly controlled through a Code Chapter and a Rule, each of which is dynamic. It is incumbent upon licensed professionals to be knowledgeable of these regulations.
3. Practice overlap exists among the licensed technical professions; this fact can contribute to sealing improprieties. Registered Architects generally should not seal electrical, mechanical, and structural drawing sheets; Engineers generally should not seal floor plan, wall section, and elevation view sheets.
4. Only final documents should receive certification consisting of sealing, signing, and dating. Documents preliminarily released must be clearly labeled as such.
5. Acceptable seal forms are embossments, stamps, computer generations, and electronic transmissions. Only final copies should be certified.
6. Exemptions to the Chapter and Rule 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 ensuring the safety, health, and protection to the natural and built environment. As the first steps in the construction process, a design, and the authenti-

city of the resulting technical submissions and engineering documents, is intuitively obvious. It is believed that most Virginia 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 Board's Rules and the Code of Virginia.

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 Virginia licensed and certified technical professionals. They can be contacted directly regarding any additional information or for clarifications needed on acceptable sealing and certification practices.

1. Virginia Department of Professional and Occupational Regulation, 9960 Mayland Drive, Suite 400, Richmond, Virginia 23233, (804) 367-8500, website: <http://www.dpor.virginia.gov/dporweb/dpormainwelcome.cfm>.
2. Virginia Board for Architects, Professional Engineers, Land Surveyors, Certified Interior Designers and Landscape Architects, 9960 Mayland Drive, Suite 400, Richmond, Virginia 23233, (804) 367-8500, website: http://www.dpor.virginia.gov/dporweb/ape_main.cfm.
3. Virginia Society America Institute of Architects, 2501 Monument Avenue, Richmond, Virginia 23220, (804) 644-3041, website: http://www.virginiaarchitecture.org/vsaia_index.html
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. Virginia Society of Professional Engineers, 3420 Pump Road #240, Richmond, Virginia 23233, (804) 364-0505, Facsimile: (804) 364-0606, e-mail: LeighDicks@VSPE.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. Virginia Association of Surveyors, 8752 Landmark Road, Richmond, Virginia 23228, (804) 262-1351, Facsimile: (804) 262-0511, e-mail: info@VASurveyor.org.

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, Virginia Chapter, 2019 Bloomfield Avenue, Roanoke, Virginia 24012-6775, (804) 370-5616, e-mail: asidmail@yahoo.com
11. American Society of Landscape Architects, Virginia Chapter, 11712C Jefferson Avenue #249, Newport News, Virginia 23606, (757) 685-4580, e-mail: info@vaasla.org

References

1. Nostalgic Impressions Incorporated, Post Office Box 1309, Selden, New York 11784, ©2003, www.nostalgicimpressions.com.
2. Virginia Department of Occupational Regulation, Board for Architects, Professional Engineers, Land Surveyors, Certified Interior Designers and Landscape Architects web site: www.dpor.virginia.gov/dporweb/ape_main.cfm.
3. North Carolina Office of Administrative Hearings, Rules Division, Administrative Code, Title 21, Chapter 2, Architecture.
4. *Architecture As It Differs From Engineering*, National Council of Architectural Registration Boards, Washington, D.C., April 1995.
5. Belzung P.E., J.L., *Who Should Be The Prime Professional?*, Iowa Examining Board News, page 3, Fall 1996.
6. Virginia Construction Code, Part 1, 2006 Virginia Uniform Statewide Building Code (USBC), Chapter 1 Section 109.3, and Chapter 2 Definitions, Virginia Board of Housing and Community Development.
7. Virginia Legislature General Assembly, Code of Virginia, Title 54.1, Chapter 4, Article 1, Section 401, Exemptions.
8. *Can a Professional Engineer Seal Subdivision Plats?*, Dimensions, Volume 18, Spring 1999, Virginia Board for Architects, Professional Engineers, Land Surveyors, Certified Interior Designers and Landscape Architects.
9. Virginia Legislature General Assembly, Code of Virginia, Title 54.1, Chapter 4, Article 1, Section 400, Definitions.

10. Virginia Legislature General Assembly, Code of Virginia, Title 54.1, Chapter 4, Article 1, Section 408, Practice of land surveying; subdivisions.
11. Private use of any Virginia State seal is restricted by law. Virginia 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.
12. Dimensions, Volume 26, Fall 2008, Virginia Board for Architects, Professional Engineers, Land Surveyors, Certified Interior Designers and Landscape Architects.
13. Virginia General Assembly, Virginia Administrative Code, Title 18, Agency 10, Chapter 20, Section 730, Competency for assignments.
14. Virginia General Assembly, Virginia Administrative Code, Title 18, Agency 10, Chapter 20, Section 760, Use of seal.
15. Virginia Legislature General Assembly, Code of Virginia, Title 54.1, Chapter 4, Article 1, Section 402, Further exemptions from license requirements for architects, professional engineers, and land surveyors.
16. Virginia General Assembly, Virginia Administrative Code, Title 18, Agency 10, Chapter 20, Section 370 *et seq*, Minimum standards and procedures for land boundary surveying practice.
17. Virginia General Assembly, Virginia Administrative Code, Title 18, Agency 10, Chapter 20, Section 382, Minimum standards and procedures for surveys determining topography; field procedures; office procedures.
18. Virginia General Assembly, Virginia Administrative Code, Title 18, Agency 10, Chapter 20, Section 392, Photogrammetric surveys.
19. 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.
20. *Ibid*, Section 240.20.C.7.
21. Virginia General Assembly, Virginia Administrative Code, Title 18, Agency 10, Chapter 20, Section 740, Professional responsibility.
22. *NSPE Code of Ethics for Engineers*, National Society of Professional Engineers, Alexandria, Virginia.
23. *Code of Ethics*, American Society of Civil Engineers, Reston, Virginia.
24. Virginia Legislature General Assembly, Code of Virginia, Title 54.1, Chapter 4, Article 1, Section 401.3, Exemptions, non-residents and recent arrivals.

25. Dimensions, Volume 25, Spring 2006, Virginia Board for Architects, Professional Engineers, Land Surveyors, Certified Interior Designers and Landscape Architects.
26. Dimensions, Volume 22, Winter 2001/2002, Virginia Board for Architects, Professional Engineers, Land Surveyors, Certified Interior Designers and Landscape Architects.
27. Virginia Legislature General Assembly, Code of Virginia, Title 54.1, Chapter 4, Article 1, Section 409, Landscape architecture.
28. Virginia Legislature General Assembly, Code of Virginia, Title 54.1, Chapter 4, Article 2, Section 412, Applicability.
29. Virginia General Assembly, Virginia Administrative Code, Title 9, Agency 25, Chapter 790, Sewage Collection and Treatment Regulations.
30. Virginia General Assembly, Virginia Administrative Code, Title 9, Agency 20, Chapter 250, Solid Waste Management Regulations.