

The background features a large, faint, circular seal of the State of Tennessee. The seal contains the text "SEAL OF THE STATE OF TENNESSEE" around the top and "THE GREAT COMMERCE" around the bottom. In the center, there is a figure holding a plow and a sheaf of wheat, with the Roman numeral "XVI" above it. The year "1796" is also visible at the bottom of the seal. The seal is partially obscured by a dark horizontal band containing the title text.

THE TENNESSEE BOARD OF ARCHITECTURAL AND ENGINEERING EXAMINERS

***Reference* MANUAL**

FOR BUILDING OFFICIALS AND DESIGN PROFESSIONALS

PREPARED BY:

TENNESSEE BOARD OF
ARCHITECTURAL AND ENGINEERING EXAMINERS

Revised 2009

Table of Contents

Foreword	ii
Introduction	1
The Requirements for Building Design	1
The Board	2
The Registration Process.....	2
Corporations, Partnerships and Firms	2
Professional Responsibility	3
Relationship to Building Officials.....	3
A Check List for the Examination of Building Construction Documents	3
Most Commonly Asked Questions	6
Appendix A—Letter of Assurance	11
Appendix B—Letter of Clarification	12
Appendix C—Seal Exemptions Clarification [T.C.A., Section 62-2-102(b)]	13
Appendix D—Example of a Properly Signed and Dated Seal	15
Appendix E—Cover Sheet for Plans Submissions	16
Appendix F—Sprinkler Design.....	18
Appendix G—Engineering Exemption Policy for Fire Sprinkler System Design	22
Appendix H—Design and Practice Policies	29
1. As-Built Drawings	
2. Asbestos Abatement Design	
3. Construction Documents and Use of the Seal	
4. Delineation of Engineering and Surveying	
5. Design Competitions/Requests for Proposals/Requests for Qualifications	
6. Design/Build by Contractors	
7. Drafting Firms and Specification Writers	
8. Expert Testimony	
9. Multiple Registrants’ Seals on a Document	
10. One-Family and Two-Family Dwellings	
11. Original Sheets, Definition of	
12. Prototypical Plans, Computer Aided Design, and U.S. Postal Services Kit of Parts	
13. Public Works—Structural/Water Lines	
14. Revisions to Plans Prepared by Prior Registrant	
15. Signs	

Foreword

This manual has been published by the Tennessee State Board of Architectural and Engineering Examiners to aid building officials, design and construction professionals, and the general public in understanding the laws of this state governing the practice of architecture, engineering, landscape architecture, and use of the title “registered interior designer.”

Information contained herein is basic and not intended to be a complete discussion of the Tennessee law. A major effort has been made to identify and address questions most asked by building officials; to this end a list of these questions, with their answers, is included as part of the manual.

The regulatory board responsible for assembling this manual protects the public by assuring its registrants and licensees are qualified to competently provide professional design and construction services in their respective disciplines. The principal focus of this Board is the protection of public health, safety and welfare.

The Board has a further responsibility to halt nonexempt, unregistered or unlicensed practice. The Board possesses the authority to investigate violations of its respective statutes and regulations and either discipline or prosecute violators accordingly.

Building officials protect the public by enforcing building code requirements. Throughout their plan check and inspection process, building officials ensure that registrants comply with building codes, local codes and ordinances. Building officials have the authority to reject documents as submitted and to withhold permits for projects that do not adhere to these requirements. Building officials rely on the Tennessee Board of Architectural and Engineering Examiners to assure its registrants and licensees are competent to practice.

A listing of currently registered architects, engineers, landscape architects, and interior designers as well as valid architectural, engineering, and landscape architectural firms, the law delineating the registration requirements and procedures, with the rules of professional conduct including civil penalties for violations of the law, is available on the Board’s website.

For further information, contact:

State of Tennessee
Department of Commerce and Insurance
State Board of Architectural and Engineering Examiners
500 James Robertson Parkway
Nashville, Tennessee 37243-1142
(615) 741-3221 (Nashville and Vicinity) 800-256-5758 (Toll Free)
615-532-9410 (FAX)
www.tn.gov/commerce/boards/ae
ce.aeboard@tn.gov (E-mail)

Introduction

The people of the State of Tennessee live and work in an environment which is largely manmade. Tennessee law recognizes the need “to safeguard life, health and property, and to promote public welfare” in that environment by ensuring that design professionals — architects, engineers, landscape architects, and registered interior designers — who shape that environment are properly qualified. Through the State Board of Architectural and Engineering Examiners, the State sets standards for the education, experience, and performance of those who wish to practice these professions.

Similarly, building officials — through their enforcement of building codes — safeguard life, health and property, and promote public welfare. The State Board of Architectural and Engineering Examiners, the building officials, and the State Fire Marshal's Office each have a vital role in the protection of the public; each must be able to depend on the others to fill its assigned role. The building official must be able to depend on professionals who are licensed by the Board to design competently and according to required standards. The Board must depend primarily upon the local building official and State Fire Marshal, particularly in nonexempt municipalities, to assure that only those who are properly licensed are allowed to provide design services.

This manual is provided to assist in the understanding of the laws and rules under which the Board and its registrants are governed with the goal of better serving the people of Tennessee, and updates and replaces the manual published in 2006.

The following portions of this manual have been significantly revised since the last publication:

- The Requirements for Building Design
- A Check List for the Examination of Building Construction Documents
- Appendix B—Letter of Clarification
- Appendix C—Seal Exemptions Clarification [T.C.A., Section 62-2-102(b)]. The former Appendix C (Example of Minimum Conditions Requiring a Registered Architect and/or Engineer When Space is Less Than 5,000 Square Feet) has been deleted due to changes to the Seal Exemptions Clarification policy.
- Appendix H—Design and Practice Policies
 - Addition of As-Built Drawings Policy
 - Revised Delineation of Engineering and Surveying Policy
 - Revised Design Competitions/Requests for Proposals/Requests for Qualifications Policy
 - Replacement of Townhouses Policy with One-Family and Two-Family Dwellings Policy
 - Addition of Signs Policy

The Requirements for Building Design

In general, all structures must have plans prepared by design professionals registered by the Board. Plans and specifications for all structures classified as “assembly,” “educational,” and “institutional” in the Standard Building Code must also be prepared by architects or engineers.

The only exceptions to this requirement are:

- Structures classified as “business,” “factory-industrial,” “hazardous,” “mercantile,” “residential” and “storage” occupancies, as such occupancies are defined in the 1985 edition of the Standard Building Code, which are:
 1. Less than three (3) stories in height; AND
 2. Less than five thousand square feet (5,000 sq. ft.) in total gross area;
- One-family and two-family dwellings and domestic outbuildings pertaining thereto; and
- Farm buildings not designed or intended for human occupancy.
- Signs that do not exceed either of the following limits (unless failure of the support system for the sign is likely to cause harm to people or property):
 - (i) Any portion of the sign is twenty feet (20') or more above the ground level; or

- (ii) Any portion of the sign is fifteen feet (15') or more above the ground level, if the sign has more than one hundred twenty square feet (120 sq. ft.) in total sign face area.

In addition, other Tennessee laws and regulations require that plans and specifications for buildings in these classifications be approved by the State Fire Marshal or the State Department of Health as is appropriate to their use. It should be noted that the law provides that any awarding authority, public or private, may require the services of a design professional for any project.

The Board

The Tennessee Board of Architectural and Engineering Examiners is composed of twelve members — three registered architects, three registered engineers, one registered landscape architect, one registered interior designer, a public member who is not engaged in the practice of architecture, engineering, or landscape architecture, and three non-voting associate engineer members. The members are appointed by the governor and serve for a period of four (4) years. The Board usually meets six (6) times a year and at such other times as the business of the Board may require.

The Board is charged with the examination of the qualifications of applicants for registration and, in proper cases, the issuing of certificates of registration. The Board may also suspend or revoke certificates of registration in cases of misconduct and has the duty to inquire into the identity of any person (or firm) claiming to be an architect, engineer, landscape architect, or registered interior designer and to prosecute persons violating provisions of the registration law. Suspected violations of the registration law should be reported to the Board office. State investigators, representing the Board, gather evidence for use in the examination of reported violations. Their work often includes joint investigations with building officials. If, in the opinion of the Board's legal staff, evidence warrants the filing of formal charges, an outline of the case is presented to the Board for action. The identity of persons involved is not known to the members of the Board until presented to them for formal action. If charges are filed, a formal hearing is held with an administrative judge from the Secretary of State's office conducting the proceeding and the Board members sitting as jury, rendering decisions and penalties where appropriate.

The terms of the act governing the four professions are found in Tennessee Code Annotated (T.C.A.), Title 62, Professions, Businesses and Trades; Chapter 2, Architects, Engineers, Landscape Architects, and Registered Interior Designers; and in the Rules, Chapters 0120-1, 0120-2, 0120-4, and 0120-5. Copies of the law and rules are available from the Board office, or can be viewed on the Board's website located at www.tn.gov/commerce/boards/ae.

The Registration Process

Candidates for registration must be of good character and repute, must have professional degrees, a specified period of experience, and must have passed an examination. Candidates holding unexpired certificates of registration from any state or jurisdiction may be registered without additional examination, provided that the applicant's qualifications meet the requirements of the Tennessee Board.

Examinations are prepared by the four (4) national professional councils of state registration boards—the National Council of Architectural Registration Boards (NCARB), the National Council of Examiners for Engineering and Surveying (NCEES), the Council of Landscape Architectural Registration Boards (CLARB), and the National Council for Interior Design Qualification (NCIDQ)—to provide consistent national standards of examination and to facilitate reciprocal registration among the various state registration boards.

Upon application, the candidates are required to submit records of education, experience, and letters of recommendation. The submittals are reviewed by Board members of the applicant's profession, and, if found satisfactory, the candidate is admitted to the examination. Registration certificates are awarded at the satisfactory completion of the examination.

Corporations, Partnerships and Firms

Corporations, partnerships, and firms (such as LLC's, LP's, and LLP's) may engage in the practice of architecture,

engineering, or landscape architecture in this state, provided that at least one (1) of the principals or officers of the firm is in responsible charge of that practice and is a registered architect, engineer, or landscape architect as required by state law. Corporations, partnerships, and firms must file a disclosure form prescribed by the Board.

Professional Responsibility

Professional registration allows the architect, engineer, or landscape architect registrant to practice his or her profession and allows the interior designer to use the title "registered interior designer." Professional registration imposes on the registrant an obligation to protect the safety, health, and welfare of the public and to render competent service. A primary part of that obligation is the recognition on the part of the registrant of the limit of the registrant's professional competence and the voluntary limitation of professional assignments to activities for which the registrant is qualified by education or experience. The "Rules of Professional Conduct," which carry the enforcement of law, specify the proper conduct of practice (or title in the case of registered interior designers), service in areas of competence, the need for objectivity and truth in public statements, the avoidance of conflicts of interest and improper acceptance of work, and misconduct in practice.

Visible identification of work produced by architects, engineers, and landscape architects is in the form of the registrant's seal, which is required to be placed on all sheets of working drawings, cover or index pages of specifications, and on reports or other documents which are for the use of those other than the originating registrant. The seal must be signed by the registrant and dated. No registrant shall affix his or her seal or signature to sketches, working drawings, specifications, or other documents developed by others not under his or her responsible charge and not subject to the authority of that registrant in critical professional judgments.

The Tennessee registration law requires that members of the Board and registrants of the Board report violations of the law and cooperate with the Board in furnishing information and rendering assistance as the Board may require. The law provides for the assessment of civil penalties against both registrants and nonregistrants for violations of statutes, rules, or orders enforceable by the Board. Violations should be reported to the Board office. The Board believes it is the registrants' responsibility to be familiar with codes and applicable jurisdictional requirements.

Relationship to Building Officials

The building officials of Tennessee and the Tennessee Board of Architectural and Engineering Examiners have the same goal: the safeguarding of life, health and property, and the promotion of public welfare. Building officials move toward that goal by the adoption of building codes and standards and the enforcement of the requirements of those codes and standards. The Board moves toward that goal by the adoption of standards of education, experience, and professional practice and the enforcement of those standards. In actual practice, each group is dependent on the other for both the creation of standards and enforcement. Much of the material contained in the codes and standards originates in the research and practice experience of the professions. The everyday policing of the requirement that registrants design most structures is dependent upon the building officials. The solutions to building design problems which do not fit the requirements of the building code depend on the experience, knowledge, creativity, and cooperation of the building official and the design professional. The common goal is achieved only by joint cooperative effort.

A Check List for the Examination of Building Construction Documents

Construction documents for most projects consist of drawings and specifications. All elements shall complement each other. Completeness and coordination of all necessary information is the responsibility of the registered architect and/or professional engineer. Construction documents submitted to the building official must be of sufficient nature to clearly show the project in its entirety.

The list below is suggested as a pattern for the examination of building construction documents prior to the issuance of a building permit.

1. In general, in order to be complete, the documents must depict the following:

- a. The overall work required for the building project, including the architectural, landscape, civil, structural, mechanical, and electrical systems where required by law;
- b. Compliance with Life Safety Code; and
- c. Compliance with applicable building, fire, and handicap accessibility codes.

2. Identification Plans Cover Sheet

The required construction documents will depend upon the size, nature, and complexity of the project. **Appendix E** lists the suggested standard of the minimum required construction documents that should be submitted for review by building officials and the information that should appear on the cover sheet. **Appendix F** addresses the State Fire Marshal's Office policy regarding the review of sprinkler shop drawings and the standard of care adopted by the Board of Architectural and Engineering Examiners regarding the required minimum documentation for fire protection sprinkler design documents.

3. Preparation by a design professional registered by the State of Tennessee

- a. All plans and specifications for buildings and structures must be prepared by a registered architect and/or engineer, except as noted below.
- b. Exceptions are:
 1. Structures classified as "business," "factory-industrial," "hazardous," "mercantile," "residential," and "storage" occupancies (classifications as described in 1985 edition of Standard Building Code)
WHICH ARE:
 - a. Less than three stories in height; AND
 - b. Less than 5,000 square feet in total gross area;
 2. One-family and two-family dwellings and domestic outbuildings pertaining thereto;
 3. Farm buildings not designed or intended for human occupancy; or
 4. Signs that do not exceed either of the following limits (unless failure of the support system for the sign is likely to cause harm to people or property):
 - (i) Any portion of the sign is twenty feet (20') or more above the ground level; or
 - (ii) Any portion of the sign is fifteen feet (15') or more above the ground level, if the sign has more than one hundred twenty square feet (120 sq. ft.) in total sign face area.
- c. When building officials receive a set of documents for permitting purposes without an architect or engineer's seal, they should ask the designer of record to sign a statement, such as the one contained in **Appendix B**.

Explanatory Notes: The Board has interpreted the above exceptions (See **Appendix C** entitled "Seal Exemptions Clarification") only for those structures classified as above which are also separated from other buildings and/or spaces/tenants by the minimum fire-rated separation required by the applicable code.

Additionally, registered interior designers, while not permitted to practice architecture or engineering, may engage in design services including consultations, studies, drawings, and specifications in connection with reflected ceiling plans, space utilization, furnishings, or the fabrication of non-structural elements within the interior spaces of buildings, but specifically excluding the services specified by law to require other licensed professionals, such as the design of life safety, mechanical, plumbing, electrical, and load-bearing structural systems, except for specification of fixtures and their location within interior spaces.

- d. See **Appendix C** entitled "Seal Exemptions Clarification," which was prepared and approved by the Board on April 27, 1989, and revised and adopted on June 25, 2009.

- e. See **Appendix G** entitled “Engineering Exemption Policy for Fire Sprinkler System Design,” which was adopted by the Board on August 25, 2005, and became effective on April 1, 2006.

4. Is the design professional properly identified?

The plans and specifications shall be prepared by a design professional registered by the State of Tennessee who shall place that professional's seal (electronically or manually) on each drawing and the title page of specifications containing work for which the professional is responsible. An example of how documents should be sealed is reviewed in **Appendix D**. Since some documents may contain the work of several professionals, documents may contain several seals. The professional's signature and the date of the signature must be across the seal. An architect, engineer, or landscape architect may not affix his or her seal to any document which has not been prepared by him or her or under his or her responsible charge. (The Board imposes serious penalties against those who violate seal restriction provisions.) The registration law for interior designers is a “title” act and not a “practice” act; therefore, it is not necessary to seal any documents they may prepare under the exempt provision stated in the Explanatory Notes above.

5. Statement with Regard to Standard of Care

The design documents submitted to the building official should reveal the complete design intent in all building trades. There should be no areas of incompleteness wherein any building trade or contractor is compelled to make design decisions. Unless the documents meet these criteria, the building official should reject the documents in order to safeguard life, health and property by requiring that only qualified architects, engineers, and landscape architects may practice architecture, engineering, and landscape architecture.

6. Public Works Projects

Public works projects involving architecture, engineering or landscape architecture by the State, any county, city, town, village, or other political subdivision of the state must have plans, specifications, and estimates prepared by registered design professionals when they are:

- greater than \$25,000 (contemplated expenditure for complete project)
- OR
- alter the structural, mechanical, or electrical system of the project.

Most Commonly Asked Questions

- 1. Building officials receive prints of plans with a copy of the seal on them. Is this acceptable or should each print be originally sealed, signed, and dated?**

The seal is placed on all original documents and signed and dated by the registrant. In the case of documents which are on translucent material for printing, this would mean that the seal, signature, and date would be reproduced. Similarly, photo copies of sealed, signed, and dated originals are acceptable. The seal without signature and date is unacceptable. (Reference Rules of Professional Conduct 0120-2-.08) An example of how documents should be sealed is on **Appendix D**.

- 2. When the building official observes the following, certain questions may arise:**

Construction plans are submitted with the same engineer's seal on structural, mechanical, plumbing, and/or electrical drawings. Should these designs be executed by separate engineers representing each discipline?

Construction plans are submitted where an architect has sealed structural, mechanical, plumbing and/or electrical drawings. Should these designs, other than architectural, be done by an engineer?

Construction plans are submitted where an architect or engineer has sealed landscape architectural drawings. Should these designs be done by a landscape architect?

A registrant may have expertise beyond the discipline in which he or she is educated and examined. While the building official should not be called upon to judge competence, any time he or she is confronted with the suspicion of incompetence, he or she should contact the Board so that it can make such judgment.

When a complete set of project drawings has been submitted bearing the seal of only one registered architect or engineer, the Board suggests that the building official require that the registrant sign a statement, such as the one contained in the attached form (**Appendix A**), as to authorship and competence. A copy of any such signed form should be forwarded to the Board for its attention. If a registrant refuses to sign such a statement, the Board should be notified immediately. Regardless, the building official should notify the Board if he or she believes the registrant of one discipline is incompetent to seal the work of another discipline when the documents look incomplete or suspect.

- 3. If on-site drainage detention is required for a site plan or plat, is a separate seal required for the hydrological calculations? If so, whose seal is adequate — architect, engineer, landscape architect, or surveyor, or is there a special seal for this particular field?**

Drainage design, such as storm water retention/detention, can be a highly complex technical process and should be prepared and sealed by a qualified registrant of this Board competent to provide this design and perform the necessary calculations. Major flood construction that would fall within the jurisdiction of the federal and state regulatory agencies would require an engineer's seal along with major flood studies.

- 4. May site plans and preliminary plats be prepared by an architect, engineer, landscape architect, or a surveyor?**

Land surveying, measurement and calculation of areas, boundaries, property lines and the plotting thereof should be performed by a surveyor registered by the Land Surveyors Board. Design changes to the topography and drainage should be performed by a qualified registrant of the Architects and Engineers Board. Design of underground utilities and electric power lines should be performed by the engineer. The arrangement of building(s) on the site, finished grading, and finished site details should be performed by a qualified registrant of the Architects and Engineers Board.

- 5. When an owner calls to complain that there has been a failure in construction and the structure was built per specifications, who is responsible? What is the responsibility of each person involved?**

The determination of degrees of responsibility for construction failures is beyond the scope of the duties of the Board. If there is indication of incompetence on the part of a registrant, the Board should be notified. The Board may then authorize an investigation of the events involved in the failure and, if warranted, take appropriate disciplinary action.

- 6. If a freestanding building classified as "business" has an area greater than 5,000 gross square feet but is only one or two stories high, must the plans and specifications be prepared by a registered architect or engineer?**

Yes. The building must meet both the requirement for an area less than 5,000 square feet and the requirement for a height of less than three stories to be exempt from the requirement for plans and specifications prepared by an architect or engineer. For instance, if a two-story building has 4,000 square feet per floor (or 8,000 total square feet), the plans and specifications shall be prepared by an architect or engineer.

- 7. If a designer, owner, contractor, or other nonregistrant prepares plans for a building which requires the use of architects or engineers and applies for a building permit, should the building official suggest that the nonregistrant contact an architect or engineer and have him or her review and place his or her seal on the plans and specifications?**

No. Under Tennessee law, a registrant may not take over, review, revise, or place his or her seal on plans and specifications begun by persons not properly qualified. A registrant may seal only work which he or she has prepared or which has been prepared under his or her responsible charge. The building official should contact the State Board and refuse to issue a permit until appropriately sealed plans are submitted.

- 8. Are registrants required for design of building utilities such as electrical service, steam systems, refrigeration systems, etc., where no changes or additions to the building are necessary?**

Yes. The intent of the law is that registrants be involved in design work pertaining to the lawful practice of architecture, engineering, or landscape architecture. Use of an electrical or mechanical engineer is not precluded simply because a general contractor is not involved in building or building structure addition and/or modifications.

- 9. Do registered interior designers have to seal any documents prepared by them?**

No. The registration law passed by the State of Tennessee in 1993 is a "title" act requiring that any interior designer who calls himself or herself a registered interior designer must be registered by the Board. The law is not a "practice" act; therefore, interior designers are allowed to do no more and no less than before the legislation was passed. A registered interior designer may provide plans and specifications in connection with reflected ceiling plans, furnishings, the fabrication of non-structural elements within the interior spaces of buildings, or space utilization not affecting life safety.

- 10. Should a building permit be issued when the building official receives a set of plans for tenant space that is part of a new multi-story office building's construction and the plans are not sealed by a licensed architect or engineer?**

No, unless the tenant space is less than 5,000 square feet and separated from other tenant spaces by the minimum fire-rated separation required by the applicable code. A qualified registrant of this board must prepare and seal the plans prepared by him or her for the tenant space, even if the shell of the building is prepared by another registrant. A registered interior designer or non-registrant may provide plans and specifications with reflected ceiling plans, furnishings, the fabrication of non-structural elements within the interior spaces of buildings, or space utilization not affecting life safety.

- 11. If the building official receives a set of architectural plans for construction or renovation of an existing building without accompanying structural, mechanical, plumbing, and electrical information, should a building permit be issued?**

No, unless there are no requirements for work in these accompanying disciplines.

12. What registrant is qualified to prepare site grading and site drainage plans?

A qualified registrant of this board who is competent in that area of design may provide site grading and site drainage plans.

13. When a nonregistrant prepares construction documents for a building, may that individual obtain a review and written certification of adequacy from a registrant and thereby obtain a building permit?

No. The written certification may not be accepted for permit issuance in lieu of construction documents prepared and sealed by a registrant. The registrant must demonstrate responsible charge for the proposed work or face disciplinary action.

14. Are designs (plans and specifications) for “pre-engineered” buildings exempt from the requirement that a registrant of the Board prepare and seal them?

No, unless the building qualifies for an exemption under Tenn. Code Ann. § 62-2-102(b). Pre-engineered buildings are not automatically exempt. The design of pre-engineered steel structures or structural components (i.e., trusses, buildings, etc.) must be prepared, sealed, signed, and dated by a Tennessee registrant. There may be additional engineers, architects, or landscape architects needed for the remaining portions of the project (i.e., electrical, plumbing, HVAC, site design, soils analysis, building circulation and exiting, physically handicapped criteria, landscaping, etc.).

15. May any person provide inspection or review of buildings or sites to determine if the project construction phase conforms to the architectural and engineering construction documents?

Yes. However, the Board recommends a registrant of this board provide construction administration or review of construction. Administration of construction contracts is defined as periodic site visits, change orders, shop drawing reviews, and reports to owners of any observed substantial deviation from the contract documents. Building officials who inspect for conformance with building codes are in no way restricted from performing their duties.

16. May a Tennessee registrant review and “over seal” plans prepared by an out-of-state professional for a design project in Tennessee?

No. A qualified registrant of this board may only seal drawings designed and prepared by or under his or her responsible charge. Sealing any drawings prepared by others will result in disciplinary action.

17. May an owner, builder, or contractor make changes to final architectural, engineering, or landscape architectural plans?

No. When plans are prepared by a Tennessee registrant, no changes may be made except by that registrant.

18. What procedures should a building official follow when the registrant does not provide plans or changes necessary to the project?

Notify the owner of the project. It is the owner's responsibility to hire the proper registrants to provide plans or submittals for the permit.

19. What should building officials do if they know that someone may be violating the registration law?

Notify the Board.

20. May a building official require a structure to be designed by an architect or engineer, although exempt

under the registration law, if it is deemed that such a structure is an undue risk to public safety, health, or welfare?

Yes. The building official may require part or all of the structure to be designed by an architect or engineer. The Board and registration law do not supersede the building official's authority to protect the health, safety, or welfare of the public.

21. Are interior designers licensed by the State to “practice” interior design?

No. Registered Interior Designers and Architects are licensed to use the title “registered interior designer.” Nonregistrants may not use the title “registered interior designer.”

22. Are full height, non-bearing, non-rated partitions considered components that affect the safety of the building?

The addition, relocation, or removal of full height, non-bearing, non-rated partitions could change or affect the safety of a building. Each situation must be judged within its specific context; thus, the building official must decide whether such partitions would affect the safety of the building.

23. Now that the Tennessee Board of Architectural and Engineering Examiners requires interior designers to be registered in order to use the title “registered interior designer,” may another registrant call himself or herself a “registered interior designer?”

Any person may render interior design services. Only Registered Interior Designers and Architects registered in the State of Tennessee may use the title “Registered Interior Designer”. (Reference T.C.A., Section 62-2-903.)

24. May the seal used by the registrant on construction documents be computer generated?

Yes. The Board has determined that the seal may be an embossed, rubber, sticky, or electronic seal. The registrant must personally sign or affix his or her signature, either manually or electronically, using a secure method.

25. If an existing building or space within a building expands by less than 5,000 square feet, is a registered architect or engineer required to provide appropriate plans and specifications?

Yes, if the cumulative or combined space or spaces (existing or expanded areas) is 5,000 square feet or more, a qualified registrant of this board is required.

26. When does it become necessary for a registrant to prepare and seal drawings and details for landscape construction?

Landscaping associated with new and existing construction of buildings of 5,000 square feet or more or greater than two stories requires the use of a registrant. For non-building/landscape related projects where site improvements are 5,000 square feet or more in area, a registrant is required.

Per T.C.A., Section 62-2-102, nothing shall prevent any awarding authority, public or private, from requiring the services of a registered architect, engineer or landscape architect for any project. See T.C.A., Section 62-2-107 for “Employment of licensees on public works.”

27. Is it necessary for a registered architect or engineer to prepare documents for a roof replacement on an existing building?

Yes. A qualified registrant is required for roof replacements or reroofs of all buildings of 5,000 square feet or more or greater than two stories in height. When a roof is replaced, structural loads during and after installation can change, energy requirements may be affected, drainage conditions can change, etc. Notwithstanding the above, a registrant is also required for public works projects under \$25,000 if the structural, mechanical, or

electrical system of the project is altered.

28. When is a registrant required to prepare plans and specifications for public works projects?

Plans and specifications for any public works construction or maintenance project involving architecture, engineering or landscape architecture that exceeds \$25,000 shall be prepared by a registrant. Notwithstanding the above, a registrant is also required for projects under \$25,000 if the structural, mechanical, or electrical system of the project is altered. Construction on any part of an electric distribution system owned by a political subdivision of the State is excluded. (Reference T.C.A., Section 62-2-107.) A registrant is also required for public works projects which have a contemplated expenditure over \$25,000.

29. Is a registered architect or engineer required to prepare and seal drawings for an existing building space of 5,000 square feet or more if the space is going to be divided into several spaces less than 5,000 square feet?

Yes. While the particular use of a facility may ultimately have individual spaces less than 5,000 square feet and separated by fire-rated construction from other tenants, the overall space requires a registered architect or engineer to be sure construction, egress, systems, etc., are properly designed and integrated collectively.

30. Is a company without a registrant in full-time employ that provides preliminary design services (i.e., schematics, where drawings are prepared to describe the basic plans and elevations) required to have a registrant licensed in the State of Tennessee?

Yes. Preliminary designs and schematic designs that may be used to continue and complete a project, even if intended to be completed by a registrant, shall be prepared by a registrant.

31. May design professionals for local public works projects in Tennessee be selected through the competitive bid process?

No. Design professionals for public works projects in Tennessee are not selected through the competitive bid process, but are chosen through qualifications-based selection, meaning that the contract is awarded based on recognized competence and integrity. In the procurement of architectural and engineering services, the selection committee/procurement official:

- may seek qualifications and experience data from any firm or firms licensed in Tennessee and interview such firms;
- shall evaluate statements of qualifications and experience data regarding the procurement of architectural and engineering services, and shall conduct discussions with such firm or firms regarding the furnishing of required services and base selection on the firm deemed to be qualified to provide the services required; and
- shall negotiate a contract with the qualified firm for architectural and engineering services at compensation which the selection committee/procurement official determines to be fair and reasonable to the government and in making such determination, the selection committee/procurement official shall take into account the estimated value of the services to be rendered, the scope of work, complexity and professional nature thereof. (Reference T.C.A., Section 12-4-106.)

APPENDIX A
LETTER OF ASSURANCE

When a complete set of project drawings has been submitted bearing the seal of only one registered architect or engineer, the Board suggests that the building official require that the registrant sign a statement, such as the following:

The documents you have submitted on the above-referenced project have your architect's/engineer's seal on all phases of the plans, which is somewhat unusual to find on construction documents for a project of this size and type. In order for this office to recognize you as the total project designer, you will need to provide the following assurances:

I, _____, confirm that:
(print or type name)

1. All project drawings bearing my seal were prepared under my responsible charge.

2. I am competent in the design of architectural, landscape architectural, civil, electrical, mechanical, plumbing, and structural systems for a project of this size and type either by reason of my education and/or experience.

Signature	Profession	TN License No.	Date
-----------	------------	----------------	------

You will need to sign, date, and return this letter of assurance in order for this office to consider you as the total project designer. This letter of assurance may be sent to the Tennessee Board of Architectural and Engineering Examiners if the building inspection department deems appropriate.

Thank you, in advance, for your cooperation in this matter.

Sincerely,

APPENDIX B
LETTER OF CLARIFICATION

When building officials receive a set of documents for permitting purposes without an architect or engineer's seal, they should ask the designer of record to sign a statement, such as the following:

The drawings you have submitted on the above-referenced project do not have the seal of an architect or engineer, which is somewhat unusual to find on construction documents for a project of this type. In order to recognize the fact that a registered architect or engineer is not required for this project, we need you to provide the following assurances (circle all that apply):

1. The design being submitted is less than 5,000 gross square feet and less than three stories in height or a tenant space less than 5,000 gross square feet and separated from other tenant spaces by the minimum fire-rated separation required by the applicable code.

and/or

2. I am competent in the design of this type of space planning, which does not include changes that affect the structural, mechanical, electrical system, or the life safety of the building and occupants of this space.

and/or

3. The building or space is not an "A," "E," or "I" occupancy, which would require a registered architect or engineer regardless of size.

and/or

4. I am a registered interior designer, and these plans and specifications are for build out of spaces less than 5,000 square feet, or these plans and specifications are in connection with reflected ceiling plans, furnishings, the fabrication of non-structural elements within the interior spaces of buildings, or space utilization not affecting life safety. My registration number is _____.

Signature

Date

In order for this office to continue to recognize you as the total project designer so that it can process the building permit, you will need to circle the appropriate statement(s) that applies(ly) in this case and sign, date, and return this letter of clarification.

Thank you, in advance, for your cooperation in this matter.

Sincerely,

APPENDIX C

SEAL EXEMPTIONS CLARIFICATION [T.C.A., Section 62-2-102(b)]

The following are situations where a registered architect, engineer, or landscape architect is not required unless an awarding authority deems it necessary:

1. Tenant finishes and tenant improvements to a building of B, F, H, R, M, or S occupancy may be designed by a non-registrant with the following provisions:
 - A. Each separate tenant space is less than 5,000 square feet and the tenant spaces are separated from other tenant spaces by the minimum fire-rated separation required by the applicable code. In accordance with Section 402.1.2 of the 1985 edition of the Standard Building Code, "each part of a building or structure included within fire walls shall be considered a separate building."
 - B. Remodeling, maintenance, or renovation of any building or structure, which does not alter the structural system, or fire protection, or egress requirements.
2. The following exemptions apply to buildings, structures and spaces of B, F, H, R, M, or S occupancy that are 5,000 square feet or more in total gross area or over two stories in height:
 - A. Existing interior space. Normal maintenance or remodeling of an existing interior space in an existing building where the occupancy or floor plan do not change but upgrades are needed, such as, remove and replace finishes (wall, floor, ceiling, where these are not a part of a required fire rated assembly), change light bulbs or filters, and rearrange prefabricated partitions.
 - B. Mechanical design.
 - i. The design of a mechanical system for a building or structure of B, F, H, R, M, or S occupancy, and a temporary structure, wherein the HVAC system developed is not more than a total of 12.5 ton capacity and not more than a total of 500,000 BTU of heating per hour output.
 - ii. Normal maintenance or replacement of defective mechanical equipment with like equipment with like size may be accomplished by contractors licensed in their respective trades.
 - C. Plumbing design. Minor plumbing upgrades and additions up to the equivalent of three (3) fixture unit values, which do not require any change to the capacity of any waste, vent or supply system.
 - D. Electrical design. Minor electrical additions, such as receptacles, lighting, or other circuits, not to exceed 20 amperes, may be designed without benefit of a registrant, if the additional circuits do not require additional distribution panel(s) and/or the need for upgrading, resizing, or enlarging branch circuits and main feeders. In addition, such work shall be performed by an appropriately licensed individual in the state of Tennessee, and such person shall certify to any authority having jurisdiction, in writing, that he/she has evaluated such work in relation to the National Electrical Code and local codes, providing, for the record, the number of circuits added and the revised loads on the existing panel(s).
 - E. Reroofing. Normal maintenance or repair of an existing roof where the weight, drainage, fire protection, and other code related requirements of the original design are not changed or compromised.

Note: In no case can anyone other than an architect or engineer registered in Tennessee provide design documentation with regard to assembly, institutional, and educational occupancies.

Note Regarding Public Works Projects: T.C.A. 62-2-107. (Employment of licensees on public works — Excluded public works)

- a. Neither the state, any county, city, town, or village, or other political subdivision of the state, shall engage in the construction or maintenance of any public work involving architecture, engineering, or landscape architecture for which the plans, specifications, and estimates have not been made by a registered architect, registered engineer, or registered landscape architect.
- b. Nothing in this section shall be held to apply to such public work wherein the contemplated expenditure for the complete project does not exceed twenty-five thousand dollars (\$25,000), and such work does not alter the structural, mechanical, or electrical system of the project.
- c. For the purposes of this chapter, "public work" does not include construction, reconstruction, or renovation of all or any part of an electric distribution system owned or operated directly or through a board by a municipality, county, power district, or other subdivision of the state of Tennessee, that is to be constructed, reconstructed or renovated according to specifications established in the American National Standard Electrical Safety Code, the National Electrical Code, or other recognized specifications governing design and construction requirements for such facilities. Notwithstanding the foregoing, "electrical distribution system" does not include any office buildings, warehouses, or other structures containing walls and a roof, which are to be open to the general public. [Acts 1979, ch. 263, § 36; T.C.A., 62-236; Acts 1988, ch. 990, § 9; 1994, ch. 644, § 3.]

HISTORICAL FOOTNOTE: This policy was adopted by the Board as a result of negotiations with construction-related industry representatives to get T.C.A., Section 62-2-102(b), enacted into law.

Adopted 4-27-89

Revised and adopted 6-8-89

Revised and adopted 10-4-97

Revised and adopted 10-12-01

Revised and adopted 1-9-03

Revised and adopted 4-22-04

Revised and adopted 5-22-08

Revised and adopted 7-10-08

Revised and adopted 9-18-08

Revised and adopted 12-11-08

Revised and adopted 6-25-09

APPENDIX D

Example of a Properly Signed and Dated Seal

Architect



Engineer



Landscape Architect



APPENDIX E

COVER SHEET FOR PLANS SUBMISSIONS

PROJECT NAME:

PROJECT ADDRESS:

PROJECT DESCRIPTION (Scope of Work):

FIRE DISTRICT:

PROJECT CONTACT PERSON: (Registered Architect or Professional Engineer in Responsible Charge)

ARCHITECTS/ENGINEERS/LANDSCAPE ARCHITECTS: List all names and pertinent information for each registrant (architect, engineers, and landscape architect) involved in the project. Include each engineering discipline represented in the project (civil, electrical, mechanical, plumbing, structural)

Name: _____

Company Name: _____

Phone (including area code): _____ (ofc.)

_____ (fax)

E-Mail Address (if applicable) _____

Tennessee License Number: _____

Design Codes/Edition ICC _____ SBCCI _____ NFPA _____

Handicapped Code Edition Used NCHC _____ CABO/ANSI _____

Type of Construction ICC _____ SBCCI _____ NFPA _____

Occupancy Group(s) ICC _____ SBCCI _____ NFPA _____

Number of Stories (excluding basement unless educational or assembly occupancy) _____

Height of Building from Average Grade _____

Building Area Per Story _____ Existing _____ Proposed _____

Occupant Load Per Floor ICC _____ SBCCI _____ NFPA _____

Required Exit Width Per Floor ICC _____ SBCCI _____ NFPA _____

Number of Parking Spaces Required _____ Proposed _____ Handicapped _____ Van _____

Fire Protection hourly ratings for all structural components and separation of hazards components required by the applicable building code.

_____ Edition of the SBC _____ Edition of the IBC

_____ Columns	_____ Beams	_____ Walls
_____ Floor/Ceiling	_____ Roof/Ceiling	_____ Roof Covering
_____ Corridors	_____ Shaft Enclosures	_____ Stair Enclosure
_____ Tenant Separations	_____ Occupancy Separations	

Sprinkler System Type _____ **Standpipe System** _____

Fire/Smoke Alarm System: _____

Abbreviations Used and Meaning: _____

WATER SUPPLY DATA (FROM NEAREST HYDRANT TO SITE)

Provide the following flow test data on the plans for hydrant(s) used to meet the 500 feet or less hose lay requirement in accordance with the local authority having jurisdiction. [State Fire Marshal's Office Policy based on NFPA 24 4.2.1]. Show flow test data next to the hydrant tested. Flow test must have been conducted within the last six months from start of design process.

- a. Static pressure _____psi
Residual pressure _____psi (20 psi minimum)
Flow _____ gpm (500 gpm minimum)
Tennessee Department of Environment and Conservation Rules and Regulations 1200-5-1-.17, paragraph 18.
- b. Party responsible for taking test (name and address)

- c. Date test taken: _____ Time test taken: _____am/pm
- c. Elevation of test hydrant: _____

General Notes:

- Identify use of rooms and spaces.
- Show area increase calculations per SBC 503.3 and SBC 503.4 or ICC
- Show wall ratings on structural, mechanical, plumbing, electrical, and fire protection drawings.
- Provide design live load values on plans for wind, snow, roof, floor, stairs, guard and hand railings, seismic per SBC 1607.1.2, etc. [SBC Chapter 16] or ICC
- Identify any exceptions/appeals/equivalencies and authority granting approval.

Note: This plans cover sheet was developed during discussions with the State Fire Marshal's Office and local Codes Enforcement Officials and should be used as a guideline when submitting plans to the designated reviewing authority.

APPENDIX F

DIVISION OF FIRE PREVENTION/CODES ENFORCEMENT PLANS REVIEW POLICY FOR REVIEW OF SPRINKLER SHOP DRAWINGS

Pursuant to Tennessee Code Annotated, Section 62-32-112, a registered fire protection sprinkler system contractor, through its responsible managing employee, may submit shop drawings of proposed fire protection sprinkler system installations in projects whose construction plans and specifications are subject to review by the Division. After receipt of the shop drawings, the Division must review the drawings and may approve or disapprove the shop drawings.

The above-cited section is not intended to circumvent the requirement for plans prepared and sealed by registered architects and/or engineers where appropriate; rather, the section is intended to allow the sprinkler system contractor to submit shop drawings to provide for the installation of the sprinkler systems. These drawings should be coordinated with the architect or engineer of record. The architect or engineer of record should always provide the design intent of the system and should review and approve or disapprove the shop drawings submitted by the sprinkler system contractor. Attached and incorporated herein by reference is a copy of the policy of the Tennessee State Board of Architectural and Engineering Examiners which sets forth the architect's or engineer's design responsibilities concerning sprinkler drawings. The goal is for the design drawings to provide sufficient information to indicate compliance with applicable building codes and ensure that the builder or installing contractor will not be required to make design decisions. The registered architect or engineer should also provide design from the point of service—that point at which the system is dedicated solely to fire protection—to the building.

To that end, the Division of Fire Prevention will accept shop drawings submitted by sprinkler system contractors. It will review such shop drawings and shall require the seal of a registered architect or engineer where engineering design is involved, as authorized by Tennessee Code Annotated, Section 62-32-112.

Adopted 4-10-97

STANDARD OF CARE FOR FIRE SPRINKLER SYSTEM DESIGN (Effective January 1, 2006)

COMMENTARY

This standard of care is intended to be utilized only by engineers for the design of fire sprinkler systems. The standard is not intended for use by others as a code compliance checklist or to replace existing regulatory agency checklists. This standard was developed to assist in design and preparation of contract documents for fire sprinkler systems. This commentary and associated standard is the Board's policy regarding the responsibilities and interactions of an engineer with the design and construction team.

The Standard of Care for Fire Sprinkler Systems Design complements NFPA 13, Chapter 14, Appendix "A" (A-14.1 Preliminary Plans, 2002 edition), and should be interpreted only as a minimum standard of design. Just as the National Fire Protection Association standards are a minimum requirement, so is the Standard of Care for engineers. The engineer is required to evaluate local job conditions for the fire sprinkler system design and coordinate with authorities having jurisdiction (AHJ).

The Design Concept in the Standard of Care refers to those inputs and calculations initially done by the engineer to develop the conceptual ideas and limitations of the system (i.e. the density, water flow, and pressure requirements; classification of the commodities to be protected; and confirmation of the hydraulic data and preliminary hydraulic design). Initial design calculations will be included in the Design Concept. In a building with several different occupancies and fire loadings, only the area of highest demand needs to be calculated.

The engineer shall establish a margin of safety between the available water pressure and the required demand pressure. When sizing pipe using the initial design calculations, the engineer should leave more safety margin than

the contractor. The difference is that the contractor's calculations will enumerate the various fittings and offsets that may not be delineated in the engineer's preliminary design.

A substantial deviation, such as a contractor's proposal for a major design change, should be recalculated and redrawn by the contractor's own Responsible Managing Employee (RME). The RME will certify his changes and submit for approval. If a competent sprinkler contractor submits a reasonable proposal for change, and if the contractor's drawings and calculations meet all the requirements of the engineer's design, and there is not a valid reason why the engineer has used a different layout configuration, the engineer should accept the contractor's drawings and calculations.

Field changes may not require recalculation by the engineer. Deviations in the field such as offsets around ductwork should be anticipated. Initial design calculations by the engineer containing a reasonable, practical pressure safety margin should cover these. Substantial deviations could require the contractor to prove his calculations are still adequate to provide the protection stipulated in the design documents.

The shop drawings and calculations should be submitted to the engineer of record prior to transmittal to the reviewing authorities for documentation and approval. The engineer of record will document his review of the shop drawings and calculations, using a review stamp. This is an engineer's acceptance, acceptance as noted, rejection, or revise and resubmit, etc. of the shop drawings. This is based on review of the shop drawings against the design concept identified in the preliminary plans. The engineer should never place his P. E. seal on the sprinkler contractor's drawings or calculations unless he actually prepared them or supervised their preparation. The reviewing authorities may accept the sprinkler contractor's drawings and calculations even if different from the preliminary design submitted by the engineer, as long as they have been approved by the engineer of record.

The water supply information and flow testing addressed in the Standard of Care requires a flow test less than six months old. The engineer should supervise the performance of the flow test and/or will verify the accuracy of the test during preliminary design.

The engineer's drawings should clearly indicate the point that the licensed plumbing or site utilities contractor's work stops and the licensed fire sprinkler contractor's work begins. Note that the fire service piping is required to be installed and certified by a licensed fire sprinkler contractor. The point of service is defined in state law, including but not limited to, Tennessee Code Annotated, Title 62, Chapter 32 (Fire Sprinkler Contractors) and Rules Chapter 0780-2-7 -.01 (Definitions) of the Department of Commerce and Insurance. The drawings are to be prepared to assure continuity in materials and performance in accordance with the various codes, especially National Fire Protection Association, Standards 13 and 24.

STANDARD OF CARE
The Design Concept (Bid Package)

- I. The Engineer develops the conceptual ideas and limitations of the system. Plans shall be drawn to an indicated scale, on sheets of uniform size, with a plan of each floor, and shall show those items from the following lists that pertain to the design of the system:
 1. Size and location of all risers, mains, and branch lines as required to provide preliminary hydraulic calculations (See Commentary and Section III).
 2. Size, type (i.e. wet, dry, deluge, pre-action, etc.), and location of risers and standpipes with description and arrangement of valving and accessories, including location of any and all hose valves, alarms and signal devices. Include area protected by each riser, each system, and each floor.
 3. The location and size of the hydraulically most remote area.
 4. A description of Occupancy and Commodity classifications.
 5. Preliminary hydraulic calculation results including, required design density, area of application, required hose stream, and required duration.
 6. Clear statement on the required water supply margin of safety between the required water supply (including hose-streams) and the available supply. A suggested safety margin is a 5% difference between the system

demand and the available water supply.

7. Type and finish of sprinkler heads in finished areas. Verify if specific sprinkler head location parameters exist.
8. Clear statement on any required seismic bracing. A statement to the effect of, "Install seismic bracing per NFPA 13" is not acceptable as NFPA 13 describes only how to install bracing.
9. Fire pump (if required) room layout, fire pump and controller specification, and transfer switch.
10. Standpipe design (if required) must be clearly delineated on the drawings.
11. A completed Owner's certificate. See NFPA 13, 2002 edition, Figure A.14.1(b) Owner's Information Certificate.

It is understood that, for many projects, a total design package prepared by a design team of various disciplines will be completed. These design documents may consist of multi-disciplinary drawings and specifications, and shall show:

12. Name of owner and occupant.
 13. Location, including street address.
 14. North arrow.
 15. Construction type, building height in feet, building area, and occupancy of each building.
 16. Full height cross section, or schematic diagram, including structural member information if required for clarity and including ceiling construction and method of protection for nonmetallic piping.
 17. Building features such as combustible concealed spaces, floor openings, window openings, areas subject to freezing, and areas from which it is intended to omit sprinkler protection.
 18. Location of fire barriers and their fire resistance rating.
 19. Proposed location and approximate size, if a water supply employing pumps or tanks is contemplated.
 20. Name and address of party submitting the preliminary plans.
 21. Tentative location of underground major piping, including mains, risers, overhead mains, and fire department connections.
- II. Site plans (may be combined with floor plans) contain information pertinent to the proper operation of suppression systems. Information below, with the appropriate details, is required:
1. Size and location of water supplies.
 2. Size and location of all piping indicating, where possible, the class and type of new pipe to be installed, and the depth to which it is to be buried.
 3. Size, type, and location of valves. Indicate if located in pit or if operation is by post indicator or key wrench through a curb box.
 4. Size, type, and location of meters and backflow prevention devices.
 5. Size, type, and location of hydrants. Include number and size of outlets. Indicate if hose houses and equipment are to be provided and by whom.
 6. Size and location of standpipe risers, hose outlets, monitor nozzles, and related equipment.
 7. Location of Fire Department connections; if part of private fire service main system, including detail of connections.
 8. Water supply information:
 - a. Information regarding whether the main is circulating or dead-end.
 - b. Pressures under flowing and static conditions. Information on orifice size and co-efficient of orifice used in the test, and pitot pressure.
 - c. Elevations of slabs, floors, ceilings, street main connection, test hydrant, etc.
 - d. Information on who conducted the flow test, when, and where the test was conducted. If reliable or

current (less than six months old) information is not available, the engineer should supervise the performance of a new flow test and/or will verify the accuracy of a new flow test during preliminary design.

III. Preliminary hydraulic calculations.

1. The Engineer shall prepare and submit preliminary hydraulic calculations proving availability of adequate water, (volume, duration, and pressure) for protection of the area of greatest demand.

IV. Specifications

1. Specifications shall be prepared for fire protection the same as for any other portion of the project.

V. Engineer's Seal

1. The engineer of record submitting fire protection system design construction documents shall seal, sign, and date each page or sheet of drawings and the first page of specifications and calculations.

VI. Legend

1. The engineer's drawings should clearly indicate the point that the licensed plumbing or site utilities contractor's work stops and the licensed fire sprinkler contractor's work begins. Note that the fire service piping is required to be installed and certified by a licensed fire sprinkler contractor. The point of service is defined in state law, including but not limited to, Tennessee Code Annotated, Title 62, Chapter 32 (Fire Sprinkler Contractors) and Rules Chapter 0780-2-7-.01 (Definitions) of the Department of Commerce and Insurance.

Adopted 11-1-90

Revised and adopted 9-20-02

Revised and adopted 1-20-05

Revised and adopted 10-17-08

APPENDIX G

ENGINEERING EXEMPTION POLICY FOR FIRE SPRINKLER SYSTEM DESIGN (Effective April 1, 2006)

This policy works in conjunction with the Engineering Exemption Policy for Fire Sprinkler Design Decision Trees. The Decision Trees should be referred to first to determine the parameters for use of this policy (see list at the end of this policy). Please note that the head counts in this policy are based on standard sprinkler heads and not extended coverage sprinkler heads. The installation of a sprinkler system in a non-sprinklered existing building which is required due to a change of occupancy or building renovation will automatically fail the System Capacity test.

1: NEW BUILDING CONSTRUCTION REQUIRING SPRINKLERS.

New building construction AND ADDITIONS OF 5,000 SF OR MORE will require the services of a Professional Engineer, competent in Automatic Fire Sprinkler design, for the design of the new fire sprinkler system. These services shall be provided in accordance with **T.C.A. § 62-2-102** [Practice and persons exempt from registration].

2: RENOVATION OF AN EXISTING FIRE SPRINKLER SYSTEM.

If there is no occupancy classification change and adequate capacity has been determined, a Professional Engineer, competent in Automatic Fire Sprinkler design, shall not be required unless the Automatic Fire Sprinklers to be installed or modified in the renovation exceed the following:

- A. Light Hazard 225 Sprinkler Heads
- B. Ordinary Hazard 225 Sprinkler Heads
- C. Extra Hazard 225 Sprinkler Heads
- D. High Pile Storage 400 Sprinkler Heads

3: UPGRADING AN EXISTING AUTOMATIC FIRE SPRINKLER SYSTEM.

If there is no occupancy classification change and adequate capacity has been determined, a Professional Engineer, competent in Automatic Fire Sprinkler design, shall not be required unless the Automatic Fire Sprinklers to be installed or modified in the renovation exceed the following:

- A. Light Hazard 225 Sprinkler Heads
- B. Ordinary Hazard 225 Sprinkler Heads
- C. Extra Hazard 225 Sprinkler Heads
- D. High Pile Storage 400 Sprinkler Heads

4: NON-SPRINKLERED EXISTING BUILDING.

If an owner elects to install an automatic fire sprinkler system in a non-sprinklered building, which under current code compliance analysis would not require an automatic sprinkler system, it shall not require the services of a Professional Engineer, competent in Automatic Fire Sprinkler design, unless the Automatic Fire Sprinklers to be installed in the new system exceed the following:

- A. Light Hazard 225 Sprinkler Heads
- B. Ordinary Hazard 225 Sprinkler Heads
- C. Extra Hazard 225 Sprinkler Heads
- D. High Pile 400 Sprinkler Heads

Classifications are as outlined in current NFPA13 standards

The Owner or his agent has the option to hire the services of a Professional Engineer, competent in Automatic Fire Sprinkler design, or a Licensed Fire Sprinkler Contractor to prepare the Design Concepts in:

- RENOVATION OF AN EXISTING FIRE SPRINKLER SYSTEM,
- UPGRADING AN EXISTING AUTOMATIC FIRE SPRINKLER SYSTEM, or
- NON-SPRINKLERED EXISTING BUILDING (BY CODE NOT REQUIRING SPRINKLERS).

If the total fire sprinklers exceed the parameters of this policy, a licensed Fire Sprinkler Contractor is not authorized to prepare the Design Concept.

If an Automatic Fire Sprinkler Contractor prepares the Design Concept, the adopted Board of Architectural and Engineering Examiners Board Standard of Care should be followed in preparing the Design Concept.

Installation of Fire Sprinkler Systems in One-and-Two Family Dwellings and Manufactured Homes shall be installed in accordance with NFPA 13-D and shall not be part of this policy.

DEFINITIONS:

<p>ADEQUATE CAPACITY. The existing public water supply or the current system configuration will serve the proposed renovations, upgrades, or additions to the structure. Adequate capacity can be calculated by an RME or PE and submitted to the AHJ for approval.</p>
<p>AHJ (AUTHORITY HAVING JURISDICTION). The organization, office, or individual responsible for approving equipment, materials, an installation, or a procedure. The phrase “authority having jurisdiction” is used in NFPA documents in a broad manner, since jurisdictions and approval agencies vary, as do their responsibilities. Where public safety is primary, the authority having jurisdiction may be a federal, state, local, or other regional department or individual such as a fire chief; fire marshal; chief of a fire prevention bureau, labor department, or health department; building official; electrical inspector; or others having statutory authority. For insurance purposes, an insurance inspection department, rating bureau, or other insurance company representative may be the authority having jurisdiction. In many circumstances, the property owner or his or her designated agent assumes the role of the authority having jurisdiction; at government installations, the commanding officer or departmental official may be the authority having jurisdiction. Source: NFPA 1.</p>
<p>BUILDING. Any structure used or intended for supporting or sheltering any use or occupancy. Source: Life Safety Code (NFPA 101), 2003 edition.</p>
<p>BUILDING OFFICIAL. The officer or other designated authority charged with the administration and enforcement of this code, or a duly authorized representative. Source: International Building Code.</p>
<p>COMMODITY. Combinations of products, packing material, and container upon which the commodity classification is based. Source: NFPA 13.</p>
<p>FIRE CODE OFFICIAL. The fire chief or other designated authority charged with the administration and enforcement of the code, or a duly authorized representative. Source: International Fire Code.</p>
<p>FIRE PROTECTION SPRINKLER SYSTEM CONTRACTOR. A person who contracts, offers to contract, or represents that such person is able to contract with a general contractor, subcontractor, or the general public for the undertaking of the sale, installation or service of a fire protection sprinkler system or any part thereof, or who actually installs or services a fire protection sprinkler system, provided that an owner of real property on which a fire protection sprinkler system is located, or a full-time employee of the owner of real property on which a fire protection sprinkler system is located, may perform simple maintenance of the fire protection sprinkler system, such as replacing a sprinkler head. Source: T.C.A. Section 62, Chapter 32.</p>
<p>HAZARD CLASSIFICATIONS:</p> <p>Light Hazard Occupancies -- Occupancies or portions of other occupancies where the quantity and/or combustibility of contents is low and fires with relatively low rates of heat release are expected.</p> <p>Ordinary Hazard Occupancies –</p> <ul style="list-style-type: none"> • Ordinary Hazard (Group 1). Occupancies or portions of other occupancies where combustibility is low, quantity of combustibles is moderate, stockpiles of combustibles do not exceed 8 ft (2.4 m), and fires with moderate rates of heat release are expected. • Ordinary Hazard (Group 2). Occupancies or portions of other occupancies where the quantity and combustibility of contents are moderate to high, stockpiles do not exceed 12 ft (3.7 m), and fires with moderate to high rates of heat release are expected. <p>Extra Hazard Occupancies --</p> <ul style="list-style-type: none"> • Extra Hazard (Group 1). Occupancies or portions of other occupancies where the quantity and combustibility of contents are very high and dust, lint, or other materials are present, introducing the probability of rapidly developing fires with high rates of heat release but with little or no combustible or flammable liquids. • Extra Hazard (Group 2). Occupancies or portions of other occupancies with moderate to substantial amounts of flammable or combustible liquids or occupancies where shielding of combustibles is extensive. <p>High-Piled Storage -- Solid-piled, palletized, rack storage, bin box, and shelf storage in excess of 12 ft (3.7 m) in height. Source: NFPA 13.</p>
<p>OCCUPANCY CLASSIFICATION. The purpose for which a building or portion thereof is used or intended to</p>

be used. Source: Life Safety Code (NFPA 101), 2003 edition.
PE (PROFESSIONAL ENGINEER). An individual who is registered to practice engineering by the Board of Architectural and Engineering Examiners.
RENOVATION. The act of improving by renewing and restoring. Source: Model building code and sprinkler standards (defined in accordance with the latest adopted by the Tennessee State Fire Marshal's Office).
RME (RESPONSIBLE MANAGING EMPLOYEE). An individual who is, or is designated to be, in active and responsible charge of the work of a fire protection sprinkler system contractor. Source: T.C.A. Section 62, Chapter 32.
STANDARD SPRINKLER HEAD. A standard, fast, or quick response fire sprinkler head that does not include an extended coverage head as defined by NFPA 13.
STRUCTURE. That which is built or constructed. Source: Life Safety Code (NFPA 101), 2003 edition.
UPGRADE (upgraded, upgrading, upgrades). To raise to a higher grade or standard. Source: Model building code and sprinkler standards (defined in accordance with the latest adopted by the Tennessee State Fire Marshal's Office).

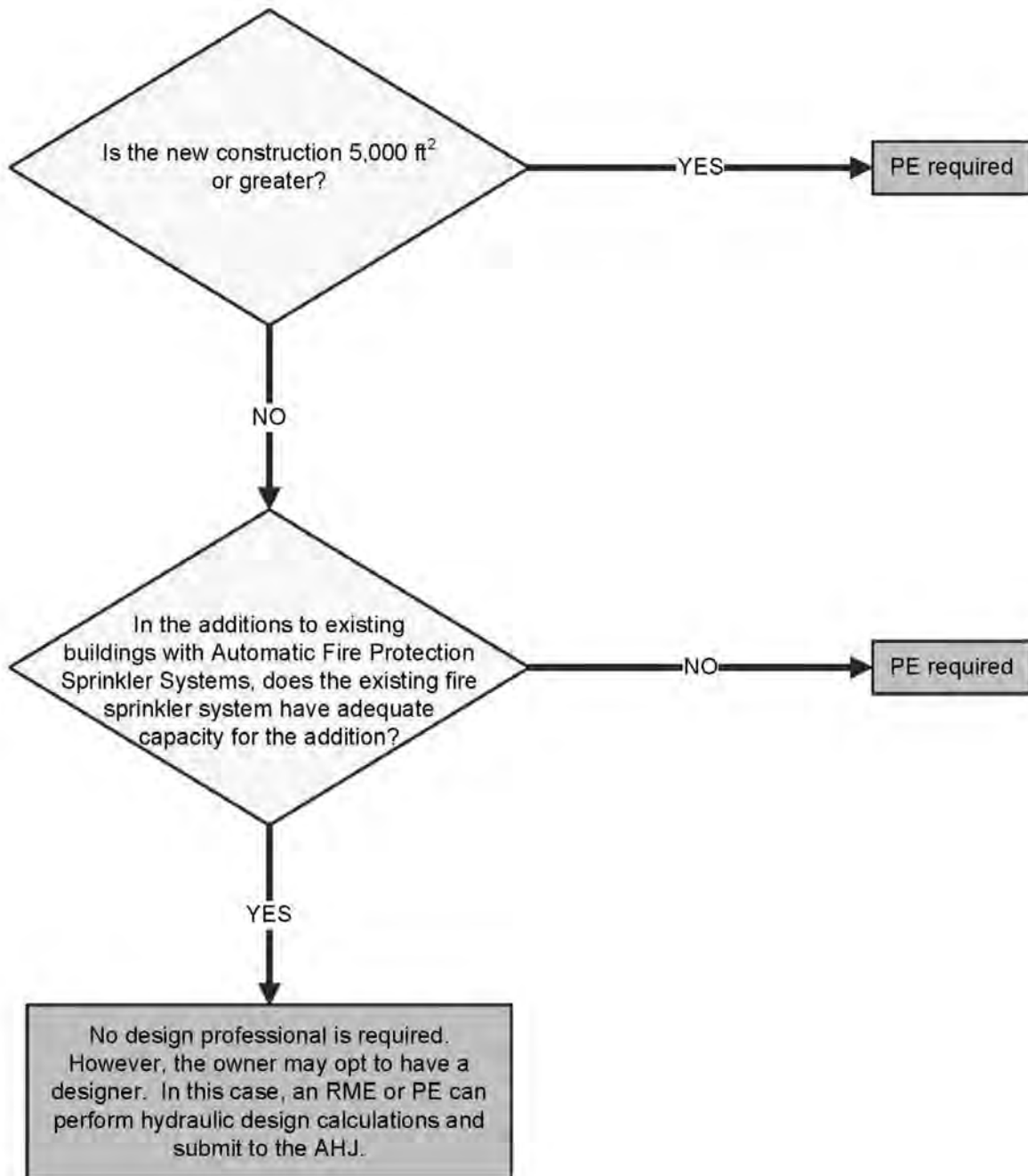
Adopted 8-25-05

Engineering Exemption Policy for Fire Sprinkler Design Decision Trees

- Fire Sprinkler System – New Construction Including Additions – page 1
- Fire Sprinkler System – Renovation/Upgrade (no occupancy change) – page 2
- Fire Sprinkler System – Existing Non-Sprinklered Building – page 3
- Fire Sprinkler System – Occupancy Classification Change – page 4

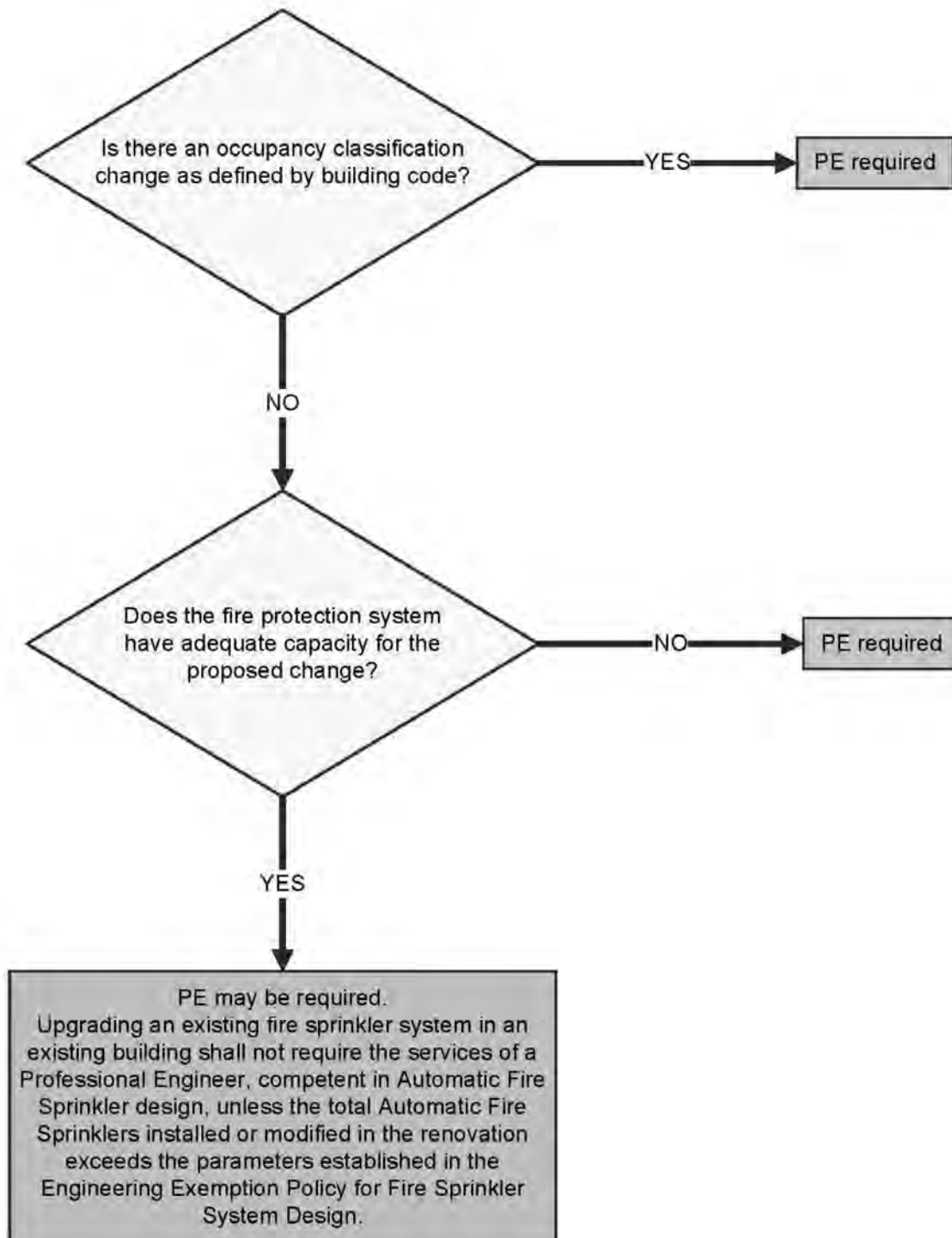
Engineering Exemption Policy for Fire Sprinkler Design Decision Tree

Fire Sprinkler System – New Construction Including Additions



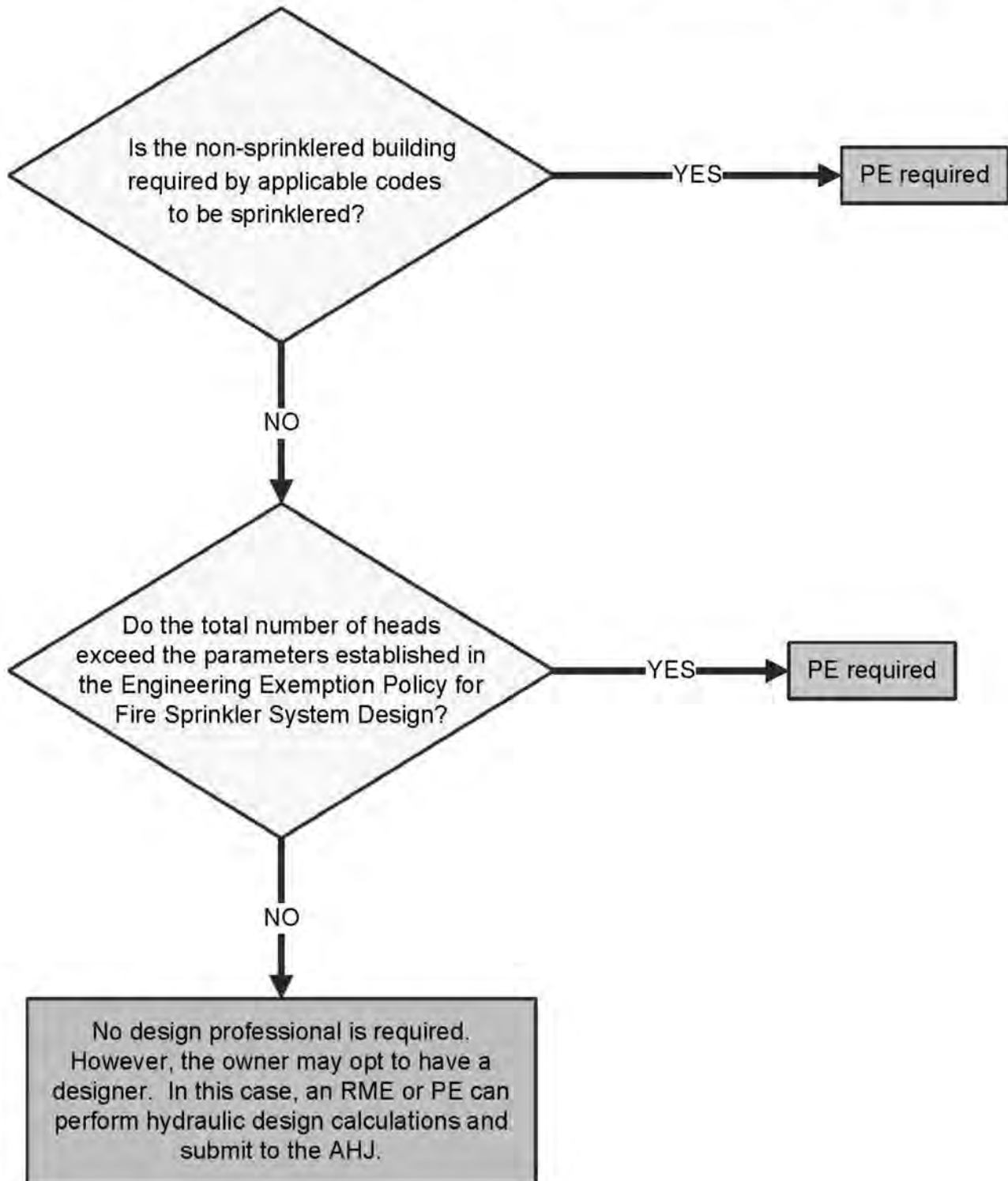
This Decision Tree is the companion document to the Engineering Exemption Policy for Fire Sprinkler System Design.

Fire Sprinkler System – Renovation/Upgrade (no occupancy change)



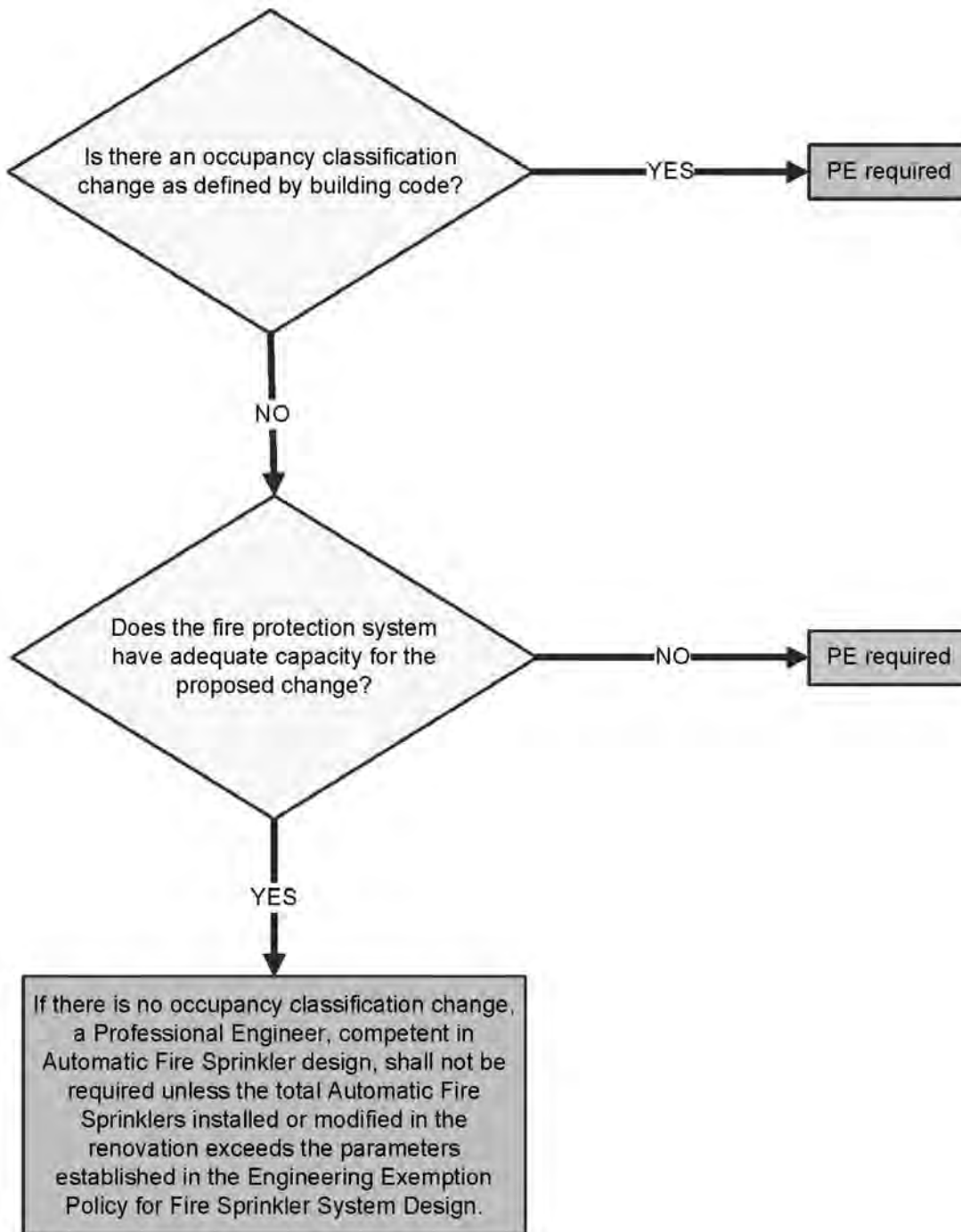
This Decision Tree is the companion document to the Engineering Exemption Policy for Fire Sprinkler System Design.

Fire Sprinkler System – Existing Non-Sprinklered Building



This Decision Tree is the companion document to the Engineering Exemption Policy for Fire Sprinkler System Design.

Fire Sprinkler System – Occupancy Classification Change



This Decision Tree is the companion document to the Engineering Exemption Policy for Fire Sprinkler System Design.

APPENDIX H

DESIGN AND PRACTICE POLICIES

I. AS-BUILT DRAWINGS

As-built drawings are often used to document how an existing structure, building site, or other development project was constructed.

The Board does not consider the representation of what was believed to be constructed to be the practice of architecture, engineering or landscape architecture. Therefore, the Board does not require that these drawings bear the seal of a design professional. However, occasions may arise when a registered design professional is required to seal such drawings. In such cases, a caveat should be included on the sealed as-built drawings, incorporating the following factors as applicable:

- This as-built drawing is a compiled representation of the constructed project.
- The sources and the basis of information used in the preparation of this as-built drawing are as follows: (insert appropriate sources, such as field inspector's notes, contractor's notes, field measurements, etc.).
- This as-built drawing is believed to be correct to the best of the professional's knowledge.

Adopted 5-22-08

II. ASBESTOS ABATEMENT DESIGN POLICY STATEMENT

Where asbestos abatement design involves the design or modification of buildings, building systems, (including, but not limited to fireproofing, fire protection systems, building ventilation systems, and fire resistive construction), and utilities, or the consequent refitting of buildings, it constitutes the practice of architecture or engineering. Subject to the exemptions listed in Tennessee Code Annotated (T.C.A.), Sections 62-2-102 and 62-2-107, asbestos abatement project drawings and specifications which deal with the design or modification of buildings, building systems, and utilities, or the refitting of buildings shall be prepared by a registered architect or engineer with competence and expertise in asbestos abatement. All such drawings shall, in accordance with T.C.A. Sections 62-2-306(b) and Rule 0120-2-.08 (Seals), bear the seal and signature of the registrant.

The above policy notwithstanding, the Board recognizes that certain aspects of asbestos abatement design which do not involve the design or modification of buildings, building systems, and utilities, or the consequent refitting of buildings may be addressed by a qualified certified industrial hygienist, as certified by the American Board of Industrial Hygiene. A certified industrial hygienist with competence and expertise in asbestos abatement design may develop a written plan and specifications for selection of personal protective equipment, employee training, medical surveillance, employee and equipment decontamination procedures, analytical requirements for monitoring, employee and area monitoring, temporary containment and negative pressure systems, work area clearance, and record keeping.

In addition, the inspection and collection of data as to possible existing asbestos in structures may be performed by a properly trained nonregistrant. Management plans and operation and maintenance plans should be prepared by a qualified registered architect or engineer or by a qualified certified industrial hygienist.

Adopted 1/26-27/89

Revised and adopted 3-30-90

Revised and adopted 10-30-91

III. CONSTRUCTION DOCUMENTS AND USE OF THE SEAL

Pursuant to Rule 0120-2-.08(2)(a), the registrant is required to stamp with his/her seal all original sheets of

any bound or unbound set of construction documents. The Board considers that some drawings or sketches are not in the construction documents category when they communicate concepts only and are not to be used for consideration in a machine, process or building project. However, any drawings prepared for the purpose of formal submittal to regulatory authorities (i.e., codes, fire marshals, etc.) as representative of fabrication or construction must be sealed by the registrant. It is recommended that drawings that are not construction documents be clearly designated "preliminary – not for construction" or by some other means indicating the drawings are not complete.

For the purpose of this policy, "working drawings or plans" means "construction documents."

Adopted 4-28-88

Revised and adopted 10-4-97

Revised and adopted 04-25-02

Revised and adopted 05-18-06

IV. DELINEATION OF ENGINEERING AND SURVEYING

In rural areas regarding subdivision development of property, an issue has arisen between surveyors and engineers wherein the surveyors feel they should take responsibility for engineering design because engineering expertise is not available and the importance of such engineering expertise is questionable. Engineers do not subscribe to this extension of the responsibilities of surveyors into their practice.

On September 17, 1987, three members of the State Board of Architectural and Engineering Examiners (Messrs. Lannom, Adsit, and Wynne) met with the Honorable Bill Richardson, Tennessee State Senator, to discuss his original intent in the delineation of the two professions during the Senate's deliberations in 1976, when the surveyors' law was passed.

The language below is the A/E Board's interpretation of the delineation of engineering and surveying:

1. Land surveying, measurement and calculation of areas, boundaries, property lines, the subdivision of property and the plotting thereof must be done by a surveyor and his drawing must bear his seal.
2. Subdivision road alignment, road grades, cutting and filling of subdivision lots, and changes to the topography which involves a final grading plan may be performed by either an engineer or a surveyor; the designer's seal must be applied to the drawing. In localities where instability of final grades and slopes requires analysis of soils to prevent conditions hazardous to life and property, design of roads, slopes, ditches, and building sites must be done by an engineer.
3. Culverts, storm drainage pipes, water lines, sewer lines, electric power lines or other utilities not existing prior to development shall not be shown on a subdivision drawing unless that drawing bears the seal of the engineer who designed them.
4. The issue of whether or not the design of storm water drainage systems may be conducted by a licensed land surveyor was addressed in an opinion by the Attorney General's Office on February 9, 2004 (Opinion No. 04-018). That Opinion answers the question: "Does the statute (Tenn. Code Ann. §62-18-102(3), defining the "practice of land surveying") allow land surveyors to conduct and perform drainage design and calculations required for the construction of subdivisions, including determining the detention and retention of storm water as well as determining the size of ponds, basins, pipes and culverts which hold and through which storm water will flow?" The Opinion concludes, based on its analysis and past authorities, that a licensed land surveyor **who is not a registered engineer** may not conduct drainage design and calculations of this kind. The Tennessee State Board of Architectural and Engineering Examiners agrees with this opinion.

Adopted 1-26-90

Revised and adopted 10-4-97

Revised and adopted 7-10-08

V. DESIGN COMPETITIONS/REQUESTS FOR PROPOSALS (RFP)/REQUESTS FOR QUALIFICATIONS (RFQ)

A person who is properly registered or licensed as an architect, engineer or landscape architect in another jurisdiction but who is not registered in Tennessee may participate in a design competition or submit RFPs or RFQs in Tennessee so long as prior to participating in the design competition or submitting RFPs or RFQs, the person files an application for registration (without the application fee and supporting documentation) with the Board and certifies therein his or her intent to complete the application process and obtain registration in Tennessee prior to executing any contract that may result from the design competition, RFP or RFQ. In no event may a person who is not registered by the Board enter into a contract to provide architectural, engineering or landscape architectural services in Tennessee.

Adopted 1-19-06

Revised and adopted 2-19-09

VI. DESIGN/BUILD BY CONTRACTORS

Contractors, without in-house registrants, offering "design/build" services are in no way authorized to perform actual architectural, engineering, or landscape architectural services. Such professional services must be performed by duly qualified registrants in conformity with the provisions of Tennessee Code Annotated (T.C.A.), Title 62, Chapter 2, and the Board's Rules of Professional Conduct.

Contractors may offer "design/build" services to the public without having to comply with the firm disclosure and supervision requirements of T.C.A., Title 62, Chapter 2, Part 6, provided no "architectural," "engineering," or "landscape architectural" services are offered in-house. In such event, any contractor without in-house registrants offering design/build services should have organized the design team, comprised of Tennessee registered architects, engineers and landscape architects competent in the work to be performed, prior to the time services are formally proposed. Additionally, qualified Tennessee registrant(s) shall be involved in any activity in preparation for or leading to a signed contract. Members of the design team should be included in any meeting with clients in which the project is discussed.

Any plans, specifications, and/or reports which are part of a proposal, and all subsequent construction documents, shall be prepared and sealed by the registrant(s) having responsible charge of the project. Any person offering design/build services should make every effort to ensure proper coordination of design drawings for the project.

Adopted 10-22-92

Revised and adopted 7-18-97

Revised and adopted 4-25-02

Revised and adopted 1-9-03

VII. DRAFTING FIRMS AND SPECIFICATION WRITERS

As Computer Aided Design (CAD) and drafting play an ever expanding role in our professions, questions arise as to the relationship of these systems to the requirements of the registration law. Among these questions is that of the role of businesses providing drafting services to professional offices. These drafting/CAD services are either by traditional manual methods or by the use of CAD equipment. At the July 31, 1987, meeting, the Board stated the following policy in this regard:

1. The drawings prepared by the drafting service are to be taken from complete information provided by the registrant whose seal will appear on the drawings.
2. The drafting or CAD firm's preparation shall not consist of any original or design work whatsoever produced by that drafting firm, including decisions for use of previously drawn or stored work. The registrant shall retain documented evidence to prove the source of such original or design work is that of the registrant.

This policy also applies to specification writers.

Adopted 7-31-87

Revised and adopted 9-29-95

Revised and adopted 10-4-97

Revised and adopted 4-25-02

VIII. EXPERT TESTIMONY

A person testifying as an expert witness is not required to be registered in Tennessee, so long as the person does not misrepresent his or her credentials as being registered in Tennessee, the person does not present a written document that would be required to be sealed, and the person does not do any other act that would constitute the practice of architecture, engineering, or landscape architecture pursuant to Tennessee Code Annotated Title 62, Chapter 2.

Adopted 1-19-06

IX. MULTIPLE REGISTRANTS' SEALS ON A DOCUMENT

If a registrant has been in responsible charge of work done on a document, the registrant's seal should be on it. Where multiple registrants in responsible charge provide content on the same document, all such registrants should seal the document, and, if there is any question, description of the areas of responsibility should be included.

Cover Page: A registrant is not required to seal the cover page of a set of construction documents unless the cover page contains architectural, engineering, or landscape architectural information (i.e. building code information). All registrants in responsible charge who work on a set of specifications are required to seal either the cover page of the specifications, or the cover page(s) for the section(s) of the specifications they produce.

For the purpose of this rule, "working drawings or plans" means "construction documents."

Adopted 1-26-89

Revised and adopted 10-4-97

Revised and adopted 4-23-98

Revised and adopted 4-25-02

Revised and adopted 5-18-06

Revised and adopted 7-20-06

X. ONE-FAMILY AND TWO-FAMILY DWELLINGS

In keeping with the definitions in the 1985 edition of the Standard Building Code, the Board defines a "one-family or two-family dwelling" [T.C.A. Section 62-2-102(b)(2)] as a structure occupied exclusively for residential purposes by not more than two families. A townhouse is considered a single-family dwelling unit constructed in a series or group of attached units with property lines separating such units. The common wall between townhouses must be designed with the minimum fire-rated separation required by the applicable code.

The following are not considered to be one-family or two family dwellings:

- A lodging house, which is defined as any building or portion thereof containing not more than five guest rooms which are used by not more than five guests where rent is paid in money, goods, labor or otherwise.
- An apartment house or multiple dwelling, which is defined as any building or portion thereof used as a multiple dwelling for the purpose of providing three or more separate dwelling units which may share means of egress and other essential facilities.

Note: A “dwelling unit” is defined as a single unit providing complete, independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation.

Adopted 6-25-09

XI. ORIGINAL SHEETS, DEFINITION OF

The words “all original sheets” in Rule 0120-2-.08(2)(a) mean "tracings or reproducible sheets."

Adopted 5-10-91

XII. PROTOTYPICAL PLANS, COMPUTER AIDED DESIGN, AND UNITED STATES POSTAL SERVICES KIT OF PARTS

The substantial portion of any project sealed by an architect, engineer, or landscape architect should be developed under his or her responsibility. The use of predrawn detail items or detail units by a registrant who has reviewed and accepted same, as long as the health, safety, and welfare of the public are protected, is allowed.

Adopted 3-30-90

Revised and adopted 10-4-97

Revised and adopted 4-25-02

XIII. PUBLIC WORKS - STRUCTURAL/WATER LINES

The term “structural” in Tennessee Code Annotated, Section 62-2-107(b), shall not include single water lines not more than 3,000 feet serving up to ten homes. (This does not include wastewater line extensions.)

NOTE: The Board’s policy is based on its opinion that the above-described water line is clearly “civil” in nature, rather than “structural.” This interpretation is confined to T.C.A., Section 62-2-107(b) and is not to be construed as addressing any other provision of state law.

Adopted 4-30-92

XIV. REVISIONS TO PLANS PREPARED BY PRIOR REGISTRANT

A registrant is prohibited from sealing plans originally prepared by a person not under the registrant’s responsible charge, whether or not that person is another registrant. In special circumstances, specifically where the first registrant has changed employment or is deceased, a second registrant may perform work on a set of plans originally prepared by another registrant. If the plans are incomplete (are at a stage prior to submittal to a reviewing official), the second registrant may not seal the set of drawings prepared by the first registrant; rather, the second registrant must take all steps necessary to ensure that the drawings were prepared under his or her responsible charge. If the plans are complete and have been submitted to a reviewing official, the second registrant may prepare and seal addenda sheets if revisions are necessary.

Adopted 1-19-06


XV. SIGNS

The Board defines a “sign” [T.C.A. Section 62-2-102(b)(4)] as a self-supporting structure that is arranged, intended, designed or used as an advertisement, announcement or direction, and includes a sign, sign screen, billboard and advertising devices of every kind (from the 1985 edition of the Standard Building Code).

Signs that do not exceed the limits outlined in T.C.A. Section 62-2-102(b)(4) are exempted from the requirement to have plans and specifications prepared by a registered architect or engineer unless an

awarding authority deems it necessary. Maintenance or repair of an existing sign that does not require technical calculation or compromise the original design is also exempted.

Adopted 6-25-09

	<p>Department of Commerce and Insurance. Authorization No. 335306, 21,000 copies, February 2009. This public document was promulgated at a cost of \$0.78 per copy.</p>
---	---

TENNESSEE BOARD OF ARCHITECTURAL
AND ENGINEERING EXAMINERS
DEPARTMENT OF COMMERCE AND INSURANCE
500 JAMES ROBERTSON PARKWAY
NASHVILLE, TN 37243-1142