Notice of December 3-4, 2015 meeting of the Board of Architectural and Engineering Examiners.
Posted to the Board of Architectural & Engineering Examiners' web site on November 25, 2015.

STATE OF TENNESSEE
DEPARTMENT OF COMMERCE AND INSURANCE
BOARD OF ARCHITECTURAL AND ENGINEERING EXAMINERS
500 JAMES ROBERTSON PARKWAY
DAVY CROCKETT TOWER
NASHVILLE, TENNESSEE 37243
Telephone: 615-741-3221 Fax: 615-532-9410
Program Website: http://www.tn.gov/commerce/section/architects-engineers

AGENDA

BOARD OF ARCHITECTURAL AND ENGINEERING EXAMINERS
NOTICE OF BOARD MEETING

Davy Crockett Tower, Conference Room 6-A/B
500 James Robertson Parkway
Nashville, Tennessee 37243

Thursday, December 3, 2015

9:00 A.M. **ENGINEER COMMITTEE MEETING**

CALL TO ORDER – Hal Balthrop, Chair

NEW BUSINESS
- Applications and Audits for Review, Discussion and Signature

UNFINISHED BUSINESS
- Update on 2016 NCEES Southern Zone Meeting
- Components of Progressive Engineering Experience
- Licensing Agreements with Foreign Jurisdictions
- Decoupling of Experience and Examination Requirements for PE Registration
- Energy Service Companies and Engineering Registration Laws

ADJOURN

The listed order of items and times on the agenda are subject to change, as the Board reserves the right to move to the next agenda items due to cancelations or deferrals.

Board meetings will be conducted by permitting participation of the Board members by electronic or other means of communication if necessary. Any member participation by electronic means shall be audible to the public at the location specified above. The Department of Commerce and Insurance is committed to principles of equal access. If you need assistance with attending this meeting due to a disability please contact the Department's ADA Coordinator at (615) 741-0481.

12:30 P.M. **ARCHITECT COMMITTEE MEETING**

CALL TO ORDER – Rick Thompson, Chair

NEW BUSINESS
- Applications and Audits for Review, Discussion and Signature
- Proposed Modifications to the *NCARB Education Standard*
- Potential Change to Rule 0120-01-.11(1)

ADJOURNMENT

1:00 P.M. **CONTINUING EDUCATION COMMITTEE**

CALL TO ORDER – Frank Wagster, Chair

NEW BUSINESS
- Changes to Continuing Education Procedure

ADJOURNMENT

1:30 P.M. **BOARD MEETING**

CALL TO ORDER – Robert Campbell, Jr., Chair
- Roll Call
- Acknowledge Guests
- Announcements
- Review Agenda for Changes and/or Additions

PRESENTATION OF RESOLUTION TO JOYCE SHRUM

CONSENT AGENDA – John Cothron, Executive Director
- Minutes from October 2015 Board Meeting
- Staff Complaint Report

PUBLIC COMMENT

PROFESSIONAL SOCIETY REPORTS

LEGAL CASE REPORT – Ellery Richardson

DIRECTOR'S REPORT – John Cothron

The listed order of items and times on the agenda are subject to change, as the Board reserves the right to move to the next agenda items due to cancelations or deferrals.

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ENGINEER COMMITTEE REPORT – Hal Balthrop

ARCHITECT COMMITTEE REPORT – Rick Thompson

CONTINUING EDUCATION COMMITTEE REPORT – Frank Wagster

UNFINISHED BUSINESS
- Action Items – John Cothron

NEW BUSINESS
- Authorization of Travel and Speakers – John Cothron
- Law and Rules Exam Updates
- Presentations to Building Officials
- Report on CIDQ Annual Meeting

RECESS

Davy Crockett Tower, Conference Room 1-A
500 James Robertson Parkway
Nashville, Tennessee 37243

Friday, December 4, 2015

8:30 A.M. PUBLICATIONS COMMITTEE MEETING

CALL TO ORDER – Stephen King, Chair

UNFINISHED BUSINESS
- Reference Manual Revisions

ADJOURNMENT

9:00 A.M. BOARD MEETING

CALL TO ORDER – Robert Campbell, Jr., Chair

UNFINISHED BUSINESS, CONT.
- Reference Manual Revisions – Stephen King
- Proposed Rule Changes – Ellery Richardson
- Review of Board Policies

ADJOURNMENT

The listed order of items and times on the agenda are subject to change, as the Board reserves the right to move to the next agenda items due to cancelations or deferrals.

Board meetings will be conducted by permitting participation of the Board members by electronic or other means of communication if necessary. Any member participation by electronic means shall be audible to the public at the location specified above. The Department of Commerce and Insurance is committed to principles of equal access. If you need assistance with attending this meeting due to a disability please contact the Department's ADA Coordinator at (615) 741-0481.

Engineer Intern Certification

Tennessee State Board of Architectural and Engineering Examiners

Background Information for Engineer Interns

INTRODUCTION

The Board has developed this guide to provide background information on the Engineer Intern certification process, general guidelines for assessing progressive engineering experience, and applying for registration by examination as a Professional Engineer.

Under Tennessee law, the following individuals meet the educational criteria to sit for the National Council of Examiners for Engineering Surveying (NCEES) Fundamentals of Engineering Examination:

1. Students who have senior standing in an undergraduate engineering curriculum that has been accredited by the Engineering Accreditation Commission (EAC) of the ABET; or
2. Individuals who have obtained an undergraduate engineering degree accredited by the EAC of the ABET or an undergraduate engineering degree determined to be substantially equivalent to an EAC/ABET-accredited degree.

Application is made to and approval must be received from the Tennessee Board to sit for the Fundamentals of Engineering Examination. Applications may be obtained from the Board office or from the Board's website. Passage of the Fundamentals of Engineering examination entitles one to receive Engineer Intern certification. Your certification, issued by the Tennessee Board, is valid indefinitely. Individuals who have obtained Engineer Intern certification may use the title "Engineer Intern." However, this certification does not entitle the individual to practice engineering. After a minimum of four-years of progressive engineering experience under the direct supervision of a registered professional engineer, an individual with Engineer Intern certification is eligible to apply for registration by examination as a Professional Engineer in Tennessee.

WHAT CONSTITUTES PROGRESSIVE ENGINEERING EXPERIENCE?

The Special Committee on Experience Evaluation of the NCEES has developed the following guidelines for the work areas and skills an engineer intern must develop to obtain progressive engineering experience.

PRACTICAL APPLICATION OF THEORY

- **ANALYSIS**—of operating conditions; performance assessment; feasibility studies; constructability; value engineering; safety; environmental issues; economic issues; risk assessment; reliability.
- **DESIGN**—construction plan or specification preparation; product specifications; component selection; maintenance and social implications of final product.
- **TESTING**—developing or specifying testing procedures; verifying functional specifications; implementing quality control and assurance; maintenance and replacement evaluation.
- **IMPLEMENTATION**—of engineering principles in design, construction, or research; performance of engineering cost studies; process flow and time studies; implementation of quality control and assurance; safety issues; environmental issues.
- **SYSTEMS APPLICATION**—evaluation of components of a larger system; evaluation of the reliability of system parts; design and evaluation of equipment control systems while considering ergonomics, utility, manufacturing tolerances, and operating and maintenance concerns; the engineering required to establish programs and procedures for the maintenance and management of buildings, bridges, and other types of structures where failure or improper operation would endanger the public health and safety.
- **TIME IN THE ENGINEERING PROCESS**—difficulties of workflow; scheduling; equipment life; corrosion rates and replacement scheduling.
- **KNOWLEDGE AND UNDERSTANDING**— codes, standards, regulations, and laws that govern applicable engineering activities.

MANAGEMENT OF ENGINEERING

Engineering management includes supervising staff, managing engineering projects, and managing and administering technology as it is applied in the field or in construction. It may involve:

- **PLANNING**—developing concepts; evaluating alternative methods.
- **SCHEDULING**—preparing task breakdowns and schedules.
- **BUDGETING AND CONTRACTING**—cost estimating and control; contract development.
- **SUPERVISING**—organizing human resources; motivating teams; directing and coordinating project resources.
- **PROJECT CONTROL**—complete or partial project control.
- **RISK ASSESSMENT**—assessment of risk associated with the progression of the project.

COMMUNICATION SKILLS

- **Accumulation of project knowledge** through interpersonal communication with supervisors, clients, subordinates, or team interaction.
- **Transmission of project knowledge** in verbal or written methods to clients, supervisors, subordinates, the general public, or team members. Examples would be via meetings, written reports, public hearings and reporting or findings and suggestions, other written correspondence and/or verbal briefings.

SOCIAL IMPLICATIONS OF ENGINEERING

- **Promoting and safeguarding** the health, safety, and welfare of the public as demonstrated in daily work activities.
- **Demonstrating an awareness** of the consequences the work performed may incur and a desire to mitigate or eliminate any potential negative impact.
- **Following a code of ethics** that promotes a high degree of integrity in the practice of professional engineering.

WHAT ARE THE REGISTRATION REQUIREMENTS TO PRACTICE AS A PROFESSIONAL ENGINEER?

If you meet the minimum educational and experience requirements listed below, you are considered eligible to apply for registration as a Professional Engineer by examination.

- An undergraduate engineering degree (4-year minimum) that has been accredited by the EAC of the ABET or that has been determined to be substantially equivalent to an EAC/ABET-accredited degree with 4 years of progressive engineering experience (with Engineer Intern certification) or 12 years of progressive engineering experience (without Engineer Intern certification).

The Board utilizes the Principles and Practice of Engineering examinations developed by the NCEES for the examination requirement for registration. All examinations that have been developed by the NCEES are offered in the State of Tennessee. Before you can be scheduled to sit for an examination, your application must be approved by the Board. Applications may be obtained from the Board office or from the Board's website.

WHY SHOULD I BECOME REGISTERED AS A PROFESSIONAL ENGINEER?

• Under Tennessee law, an individual who offers or is providing engineering services directly to the public must be registered by the Tennessee Board to offer or provide the respective engineering services. Only registered engineers may seal and sign plans, reports, or other design documents; do consulting work for public or private clients; or publicly represent themselves as being an engineer in Tennessee.

• Dedication and commitment to the engineering profession. Registration also indicates to the public that you have met minimum competence for practicing the profession.

• Engineering registration enables you to be more "marketable" and enhances your ability to change jobs in the private sector.

• Many employers in industry and government require registration to advance to senior engineering positions—opportunities that would not be available to you without a professional license.

• According to national studies, P.E.'s generally enjoy higher pay throughout their careers than non-registered engineers.

ABOUT THE BOARD

The Tennessee General Assembly created the Board of Architectural and Engineering Examiners in 1921 to safeguard life, health, and property and to promote the public welfare. The Board is charged with establishing minimum registration standards for architects, engineers, landscape architects, and registered interior designers, and regulating the practice of architecture, engineering, and landscape architecture, and the use of the title "registered interior designer" in the State of Tennessee.

The Board is comprised of three architects, three engineers, one landscape architect, one registered interior designer, one public member, and three non-voting associate engineers from across the state. The Board usually meets six times a year and at such other times as deemed necessary. The administrative functions of the Board are overseen by the Executive Director and the Board staff.

Please feel free to contact the Board office should you have questions about your Engineer Intern certification or registration as a Professional Engineer.

State of Tennessee
Department of Commerce and Insurance
Board of Architectural and Engineering Examiners
500 James Robertson Parkway
Nashville, TN 37243-1142
615-741-3221 or 800-256-5758
615-532-9410 (fax)
www.tn.gov/commerce/boards/aece.aeboard@tn.gov

Revised 2012

JAPAN PE/FE EXAMINERS COUNCIL (JPEC)

MISSISSIPPI BOARD OF LICENSURE FOR PROFESSIONAL ENGINEERS AND SURVEYORS (MSBLPES)

MEMORANDUM OF UNDERSTANDING

I. Purpose

The purpose of this Memorandum of Understanding is to establish roles, responsibilities, and financial obligations for the professional licensure program to be maintained by the Japan PE/FE Examiners Council (JPEC) and the Mississippi Board of Licensure for Professional Engineers and Surveyors (MSBLPES). The program will be available to the applicants who have passed the FE and PE examinations administered by NCEES/JPEC in Japan and satisfied the MSBLPES licensure requirements for licensure as a Mississippi Professional Engineer (PE). They are hereinafter called the "JPEC applicants."

The basis for the agreement is that the National Council of Examiners for Engineering and Surveying (NCEES) has entered into an agreement with JPEC to administer the Principles and Practice of Engineering Exam (PE) and the Fundamentals of Engineering Exam (FE) in Japan.

II. Licensure Requirements

If the applicant to JPEC successfully passes the FE and PE exams, the individual would apply as a Mississippi candidate for licensure as a PE and upon meeting the Mississippi (MS) requirements for licensure, as determined after review by the

MSBLPES, would be licensed as a Mississippi Professional Engineer under Mississippi Statutes 73-13-1 to 73-13-45.

A. After successfully passing the FE and PE exams, the JPEC applicants would complete the MSBLPES application form and would be required to meet all MS requirements specified hereinafter. This requires that the applicant have a U.S. social security number or complete the MSBLPES's Affidavit form certifying as to why the applicant has no U.S. social security number.

   1. The JPEC applicants must comply with U.S. immigration laws regarding citizenship and/or work visas if working in the state of Mississippi.
   2. The JPEC applicants who have not received a degree from an institution in an English-speaking country will be required, in support of their application, to submit proof of a score of 550 or higher on a TOEFL exam (test of English fluency) or a certificate of his or her proficiency by a P.E. or other professional person who is fluent in English.
   3. The JPEC applicants must have successfully passed the NCEES FE and PE examinations.
   4. The JPEC applicants' education must be accredited by the Accreditation Board of Engineering and Technology (ABET) or be evaluated by NCEES Credential Evaluation Service and found to meet the NCEES Engineering Education Standard.
   5. Five references must be provided with the application – three of whom must be United States and/or Japan licensed Professional Engineers who can attest to the quality of the applicants' experience and education.
   6. The JPEC applicants' outside-U.S. engineering experience will be evaluated by MSBLPES upon application to determine if the application be accepted by MSBLPES.

B. The applicant would pay the MSBLPES application fee.

C. Upon successfully meeting the requirements of Mississippi Statutes 73-13-1 to 73-13-45, as determined by MSBLPES, the JPEC applicant will be issued a Mississippi PE license and be subject to all applicable laws and rules.

D. Mississippi statute 73-13-43 requires engineering services being offered or performed in Mississippi by a corporation, firm, or partnership to have an engineering Certificate of Authority.

III. Effective Date

This agreement is effective as of the 1st day of April, 2015, and may be modified at any time with the concurrence of the signatories. Further, this agreement may be terminated upon due and proper written notice by either party.

Shinichi Yamauchi, PE, PhD
President
Japan PE/FE Examiners Council

Dennis D. Truax, PE, PhD, DEE
President
Mississippi Board of Licensure for
Professional Engineers and Surveyors

THE JAPAN PE/FE EXAMINERS COUNCIL

KENTUCKY STATE BOARD OF LICENSURE FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS

THIS MEMORANDUM OF UNDERSTANDING (the "AGREEMENT") is made and entered into this _____ day of _____ 201__ by and between The Japan PE/FE Examiners Council (hereinafter referred to as "JPEC"), with a mailing address of 2-10-17-2F, Akasaka, Minato-ku Tokyo, Japan 107-0052 and the Kentucky State Board of Licensure for Professional Engineers and Land Surveyors (hereinafter referred to as the "Board"), with a mailing address of 160 Democrat Drive, Frankfort, KY 40601 USA.

WHEREAS, The Professional Engineer ("PE") license is regarded as the global standard for engineering and is a recognized criterion of an individual's engineering competency;

WHEREAS, The Fundamentals of Engineering ("FE") exam and the Principles and Practice of Engineering ("PPE") exam is administered in Japan by the National Council of Examiners for Engineering and Surveying ("NCEES") and JPEC;

WHEREAS, JPEC candidates who have successfully completed the FE and PPE exams cannot become or refer to themselves as a PE until they are licensed in a United States jurisdiction;

WHEREAS, JPEC candidates want to apply for PE licensure in Kentucky; and

WHEREAS, The Board is willing to accept applications for PE licensure from such candidates.

NOW, THEREFORE, in consideration of the mutual covenants and conditions contained herein, JPEC and the Board hereby AGREE as follows:

1. PURPOSE

1.1 The purpose of this Agreement is to facilitate the licensure of JPEC candidates as Professional Engineers ("PE") in the Commonwealth of Kentucky.

2. BOARD REQUIREMENTS

2.1 The Board will accept candidates for PE licensure who have successfully completed the FE and PPE exams administered by NCEES/JPEC in Japan.

2.2 Candidates must meet the Board's requirements for PE licensure contained in Kentucky Revised Statutes Chapter 322 including:

a. Education – an engineering degree accredited by the Engineering Accreditation Commission ("EAC") of the Accreditation Board for Engineering and Technology ("ABET") or acceptable evaluation from NCEES Credentials Evaluation Services.

b. Exams – Passed both the FE and PPE exams.

c. Experience – Four (4) years of progressive engineering experience obtained after graduation

3. JPEC CANDIDATE REQUIREMENTS

3.1 Candidates shall use the application forms prescribed by the Board.

3.2 The application fee must accompany the application and is presently three hundred dollars ($300.00 US).

3.3 Candidates shall obtain an evaluation of their education by NCEES Credentials Evaluation Services unless they have an EAC ABET accredited engineering degree. If they have an EAC ABET accredited engineering degree, candidates must request an official transcript be sent from the school to the Board.

3.4 Candidates shall submit five (5) references from individuals familiar with the applicant's work and/or character. Three of the five of which must be licensed engineers. They are not required to be licensed in the United States but can hold a license from another country such as Japan.

3.5. Candidates agree to use their email addresses as their official means of contact with the Board for all purposes.

3.6 JPEC will work with the Board to develop appropriate procedures for the exchange of work experience information which will assist the Board in evaluating the engineering experience of the candidates.

4. TERM

The initial term of this AGREEMENT shall be from the effective date through December 31, 2014. Unless terminated by one of the parties, this AGREEMENT shall be automatically extended for additional one-year periods.

IN WITNESS WHEREOF, the parties have executed this AGREEMENT as of the date above.

AGREED TO BY:

The Japan PE/FE Examiners Council

_____ Date:_____
Masami Yoshimoto, P.E., President

Kentucky State Board of Licensure for Professional Engineers and Land Surveyors

_____ Date:_____
B. David Cox, Executive Director

MEMORANDUM OF UNDERSTANDING

BETWEEN

TEXAS BOARD
OF
PROFESSIONAL ENGINEERS

AND

JAPAN PE/FE EXAMINERS COUNCIL

DECEMBER 2013

TEXAS BOARD OF PROFESSIONAL ENGINEERS

THE JAPAN PE/FE EXAMINERS COUNCIL

THIS MEMORANDUM OF UNDERSTANDING (the "AGREEMENT") is made and entered into this _____ day of _____ 20__ by and between the Texas Board of Professional Engineers (hereinafter referred to as the "Board"), with a mailing address of 1917 S Interstate 35, Austin, TX 78741 and the Japan PE/FE Examiners Council (hereinafter referred to as "JPEC"), with a mailing address of 2-10-17-2F, Akasaka, Minato-ku Tokyo, Japan 107-0052.

WHEREAS, The Professional Engineer ("P.E.") license is regarded as a global standard and recognized indicator of an individual's engineering competency;

WHEREAS, The Fundamentals of Engineering ("FE") exam and the Principles and Practice of Engineering ("PE") exam are a required part of PE licensure;

WHEREAS, The FE and PE exams are administered in Japan by the National Council of Examiners for Engineering and Surveying ("NCEES") and JPEC;

WHEREAS, JPEC candidates who have successfully completed the FE and PE exams cannot become or refer to themselves as a P.E. until they are licensed in a United States jurisdiction;

WHEREAS, JPEC candidates want to apply for P.E. licensure in Texas; and

WHEREAS, The Board is willing to accept applications for P.E. licensure from such candidates;

NOW, THEREFORE, in consideration of the mutual covenants and conditions contained herein, JPEC and the Board hereby AGREE as follows:

1. PURPOSE

1.1 The purpose of this Agreement is to facilitate the licensure of JPEC candidates as Professional Engineers ("P.E.") in the state of Texas.

2. BOARD REQUIREMENTS

2.1 The Board will accept candidates for P.E. licensure who have successfully completed the FE and PE exams administered by NCEES/JPEC in Japan.

2.2 Candidates must meet the Board's requirements for P.E. licensure contained in Texas Occupations Code, Chapter 1001, and Texas

Administrative Code, Title 22, Part 6 ("Board Rules"), including:

a. Education – a degree from an engineering program accredited or otherwise approved by:
   1. The Engineering Accreditation Commission ("EAC") of the Accreditation Board for Engineering and Technology ("ABET");
   2. The Washington Accord; or
   3. Acceptable evaluation from NCEES Credentials Evaluation Services.

b. Examinations – Passed both the FE and PE exams and completed the Texas Engineering Professional Conduct and Ethics examination.

c. Experience – A minimum of four (4) years of progressive engineering experience obtained after graduation, with at least two years of experience in the United States or other experience that would demonstrate a familiarity with U.S. codes and engineering practice.

3. JPEC CANDIDATE REQUIREMENTS

3.1 Candidates shall use the application forms prescribed by the Board.

3.2 The application fee must accompany the application and is the same as for U.S. applicants.

3.3 Candidates shall obtain an evaluation of their education by NCEES Credentials Evaluation Services unless they have an EAC ABET accredited engineering degree or a degree approved under the Washington Accord. If they have an EAC ABET accredited engineering degree, candidates must request an official transcript be sent from the school to the Board.

3.4 Candidates shall submit a minimum of three (3) references from licensed engineers familiar with the applicant's work and character. The reference providers are not required to be licensed in Texas, but at least two (2) must be licensed in the United States. The remaining references can hold a PE equivalent license from another country such as Japan.

3.5. Candidates agree to use their email addresses as their official means of contact with the Board for all purposes.

3.6 JPEC will work with the Board to develop appropriate procedures for the exchange of work experience information which will assist the Board in evaluating the engineering experience of the candidates.

4. TERM

The initial term of this AGREEMENT shall be from the effective date through December 31, 2014. This agreement may be terminated by either party upon the provision of one year written notice to the non-terminating party. Unless terminated by one of the parties, this AGREEMENT shall be automatically extended for additional one-year periods.

IN WITNESS WHEREOF, the parties have executed this AGREEMENT as of the date above.

AGREED TO BY:

Texas Board of Professional Engineers

_____ **Date: _____**
Lance Kinney, P.E., Executive Director

The Japan PE/FE Examiners Council

_____ **Date: _____**
Masami Yoshimoto, P.E., President

NCARB

National Council of Architectural Registration Boards

1801 K Street NW, Suite 700K
Washington, DC 20006
202/783-6500
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www.ncarb.org

MEMORANDUM

TO: Member Board Members
Member Board Executives

FROM: Dennis Ward, AIA, NCARB
President/Chair of the Board

DATE: October 8, 2015

SUBJECT: **Request for Comments:** Modifications to the *NCARB Education Standard*

INTRODUCTION

The education requirement for NCARB certification is a professional degree in architecture from a program accredited by the National Architectural Accrediting Board (NAAB) or the Canadian Architectural Certification Board (CACB). There are two alternative means to satisfy the education requirement:

- Completion of the Broadly Experienced Architect (BEA) Program
- An EESA-NCARB education evaluation report stating satisfaction of the *NCARB Education Standard*.

Both alternatives utilize the *NCARB Education Standard* as criteria by which certificate applicants are assessed.

The *Standard* is also used in the EESA-NCARB education evaluation report for foreign educated applicants pursuing initial licensure in the U.S. The *Standard* is regularly reviewed and updated from time to time in order to remain relevant to current practice and in alignment with the *NAAB Conditions for Accreditation*.

The proposal for modifications to the *NCARB Education Standard* was reviewed by the NCARB Board of Directors at the June Pre-Annual Board Meeting. The Board of Directors would now like feedback from our Member Boards prior to voting on these proposed changes. Comments will be received through January 12, 2016.

Feedback from our Members Boards on these proposed changes is critical to the Board of Directors. The Board would like to assure that we have heard from our membership on this subject and that we continue to maintain the *NCARB Education Standard* as a valid and appropriate criteria by which to review an applicant's alternative education for certification.

The following pages provide details and rationale on all proposed modifications. Questions regarding the proposal should be directed to Harry Falconer (hfalconer@ncarb.org) or Michelle Dixson (mdixson@ncarb.org).

BACKGROUND

The *NCARB Education Standard* is the approximation of the requirements of a professional degree from a program accredited by the National Architectural Accrediting Board (NAAB). It includes general studies, professional studies, and electives, which together comprise a professional education in architecture.

The *NCARB Education Standard* is not the equivalent to the *NAAB Conditions for Accreditation*. The *NCARB Education Standard* is prescriptive based and includes subject area definitions and semester credit hour requirements. The *NAAB Conditions for* Accreditation are performance based and include criteria by which student outcomes are reviewed.

EXECUTIVE SUMMARY

Following the 2013 NAAB Accreditation Review Conference, the *Conditions for Accreditation* were revised and updated in 2014. The FY15 Education Committee was charged with reviewing the *NCARB Education Standard in order to confirm* relevancy and alignment with the updated Student Performance Criteria (SPC) in the *2014 NAAB Conditions for Accreditation*.

The committee, composed of education specialists and a representative from the NAAB, approached the charge by identifying misalignments between the subject areas of the *Standard* and the SPC of the *Conditions*, eliminating overlap between the two sets of requirements, and addressing SPC not currently covered in the *Standard*. This approach led to modifications, including nomenclature changes, reorganization and addition of subject area categories, merging of categories, and adjustments to semester credit hour requirements. The proposed changes include an update to the *Standard's* subject area and category definitions completed in collaboration with NAAB subject matter experts.

Please refer to the attached *Education Standard* Comparison Chart and the *Education Standard* redline document for details regarding the proposed changes.

PROPOSED *EDUCATION STANDARD* OUTLINE
In this proposed outline, the relative NAAB SPC are identified and aligned under each subject area, with the exception of General Education. The language from each of the NAAB SPC was then integrated into the *NCARB Education Standard* based upon the proposed alignments.

I. **General Education** (currently 45 semester credit hours); remain as is.

II. **History and Theory, Human Behavior, and Environment** (currently 16 semester credit hours)

Proposed Changes:

- Subject Area title change to History and Theory, and Human Behavior.
- Requirement reduction from 16 to 12 semester credit hours.
- Relocate Environment category to studio design hours.
- The remaining three (3) semester credit hours may be in any one or more categories of the History and Theory, and Human Behavior subject area.

Proposed Categories and Related SPC:

A. History and Theory – 6 semester credit hours min.
   i. A.7 – History and Global Conditions

B. Human Behavior – 3 semester credit hours min.
   ii. A.8 – Cultural Diversity and Social Equity

III. Technical Systems (currently 24 semester credit hours)

Proposed Changes:

- Subject Area title change to Building Practices.
- Requirement increase from 24 to 27 semester credit hours.
- Move Technical Documentation from Practice Subject Area to this Subject Area.
- Category title change from Building Service Systems and Building Envelope/Enclosure Systems to Building Service and Building Enclosure Systems.
- Add Financial Considerations category

Proposed Categories and Related SPC:

A. Structural Systems – 6 semester credit hours min.
    i. B.5 – Structural Systems
B. Environmental Control Systems – 6 semester credit hours min.
    ii. B.6 – Environmental Systems
C. Construction Materials and Assemblies – 6 semester credit hours min.
    iii. B.8 – Building Materials and Assemblies
D. Building Service and Building Enclosure Systems – 3 semester *credit hours min. (title change)*
    iv. B.7 – Building Envelope Systems and Assemblies
    v. B.9 – Building Service Systems
E. Technical Documentation – 3 semester credit hours min. (moved from Practice)
    vi. B.4 – Technical Documentation
F. Financial Consideration – 3 semester credit hours min. (added requirement)
    vii. B.10 – Financial Considerations

IV. Design (currently 50 semester credit hours)

Proposed Changes:

- Requirement reduction from 50 to 42 semester credit hours.
    - This reduction in semester credit hours is based on the linking study performed by the committee. The NAAB SPC linked to Design Levels I-IV only, therefore the committee has proposed the elimination of Design V, which required 8 credit hours.
    - Current Level V Design, which includes comprehensive design requirements, is now represented in *Integrated Design,* the proposed fourth category.
    - The remaining ten (10) semester credit hours may be in any one or more categories of the Design subject area.
- Categories renamed and redefined.
    - Eliminates the misperception that Design Levels, which demonstrate knowledge that is built upon through each consecutive Level, are sequential and refer to years in school.

- Provides a more accurate reflection of the criteria.

Proposed Categories and Related SPC:

A. *Fundamental Design (current Level I) – 8 semester credit hours min.*
   i. A.1 - Professional Communication Skills
   ii. A.2 - Design Thinking
   iii. A.4 - Architectural Design Skills
   iv. A.5 - Ordering Systems

B. *Program and Site Design (current Level II) – 8 semester credit hours min.*
   i. B.1 - Pre-Design
   ii. B.2 - Site Design
   iii. Added language from NAAB Perspectives on sustainability and environmental design

C. *Research and Investigative Based Design (current Levels III and IV) – 8 semester credit hours min.*
   i. A.3 - Investigative Skills
   ii. A.6 - Use of Precedents
   iii. C.1 - Research

D. *Integrated Design (current Levels IV and V) – 8 semester credit hours min.*
   i. C.2 - Integrated Evaluations and Decision-Making Design Process
   ii. C.3 - Integrative Design

V. Practice (currently 9 semester credit hours, of which 3 must be in Laws and Regulations)

Proposed Changes:

- Requirement increase from 9-12 semester credit hours.
- Require an additional <u>minimum</u> of 3 credit hours in Ethics and Professional Conduct.
- Category title change from Project Process to Stakeholder Roles in Architecture.
- Subject Area title change to Professional Practice.
- The remaining six (6) must be distributed across the other three categories.

Proposed Categories and Related SPC:

A. Stakeholder Roles in Architecture – 3 semester credit hours <u>max</u>.
   i. D.1 – Stakeholder Roles in Architecture

B. Project Management – 3 semester credit hours <u>max</u>. (change title)

ii. D.2 – Project Management

C. Business Management – 3 semester credit hours max.
   iii. D.3 – Business Practices

D. Laws and Regulations – 3 semester credit hours min.
   iv. B.3 – Code and Regulations
   v. D.4 – Legal Responsibilities

E. Ethics and Professional Conduct – 3 semester credit hours min.
   vi. D.5 – Professional Conduct

VI. **Electives** (currently 16 semester credit hours)

Proposed Changes:

- Requirement decrease from 16-12 semester credit hours.
- Subject Area title change to Optional Studies.

Note: Although there is an overall reduction of ten semester credit hours, the proposed *Standard* includes the same percentage of architecture-related coursework as the current *Standard*. The proposed total (150 semester credit hours) is also in alignment with the current requirements for an accredited Bachelor of Architecture degree program. The resulting outline provides a distribution of hours and subject areas that are aligned with the *2014 NAAB Conditions for Accreditation*.

CONCLUSION

The Education Committee, educators and subject matter experts in education evaluation were engaged in the comprehensive assessment and revision of the proposed *NCARB Education Standard*. The reorganization, revisions to nomenclature and subject area definitions, and adjustment of semester credit hour requirements maintains the relevancy and currency of the *Standard* as the criteria by which to review applicants for licensure and/or certification.

Comments will be received through January 10, 2016 and the Board of Directors will be reviewing these comments and voting on these proposed changes at a special meeting scheduled for January 30, 2016.

NCARB

The *NCARB Education Standard* is the approximation of ~~the~~ a first ~~requirements of a~~ professional degree from a NAAB-accredited degree program. It includes general studies, professional studies, and ~~electives~~optional studies, which together comprise a professional liberal education in architecture.

The *NCARB Education Standard* is the criteria for the EESA-NCARB Education Evaluation (described on page 19 of the Education Guidelines). An EESA-NCARB Education Evaluation is required for two types of applicants who are seeking to satisfy one of two alternates to the education requirement for NCARB certification:

1. ~~>~~ Applicants who have a professional degree in architecture from a country other than the United States or Canada and whose degree meets the requirements for licensure in that country~~., and~~
2. ~~>~~ Applicants for the Broadly Experienced Architect (BEA) Program who have at least 64 semester credit hours (or 96 quarter credit hours) of post-secondary education.

The EESA-NCARB Education Evaluation process is described on page 20 and the BEA Program is described on page 9 of the *Education Guidelines*. The education requirement for NCARB certification is described in the ~~*Handbook for Interns and Architects*~~*Certification Guidelines*.

The *NCARB Education Standard*, the individual subject areas and categories of the *NCARB Education Standard*, and means to satisfy any identified deficiencies are described ~~below and~~ on the following pages. The following definitions have been developed to approximate the requirements of a NAAB-accredited degree program in architecture.

A minimum of ~~160~~150 semester credit hours[1] (~~which is the equivalent of 240~~ 225 quarter credit hours) of academic credit is required and is grouped into six subject areas: General Education; History and Theory and~~,~~ Human Behavior~~, and Environment~~; ~~Technical Systems~~Building Practices; ~~Practice;~~ Design; Professional Practice; and ~~Electives~~Optional Studies.

1. General Education

A total of 45 semester credit hours are required. At least three (3) hours in the Communication Skills category must be in English Composition. The remaining 42 hours may be in any one or more categories of the General Education subject area.

A. Communication Skills

Communication Skills are defined as effective written and oral communication using the conventions of Standard English as taught in ~~the United States~~English-speaking countries.

Acceptable courses include English composition, English grammar, public speaking, media communication, community consensus building, research methods, speech communication, business communication, and introductions to research.

Courses in English literature are NOT acceptable in this category, but they are acceptable in Humanities and Arts. Courses in English as a foreign language are NOT acceptable in Communication Skills; however, they may be acceptable in Humanities and Arts.

B. Humanities a~~A~~nd Arts

[1] [1] A "credit hour" is the unit of measuring educational credit, usually based on the number of classroom hours per week throughout a term. Students are awarded credit for classes on the basis of the Carnegie unit. This defines a semester unit of credit as equal to a minimum of three hours of work per week for a semester (Definition of a Carnegie Unit). Generally, in the U.S., a semester credit hour is measured as 15-16 contact hours per semester.

Humanities and Arts are defined as the academic study of the expressions and artifacts of human experience in word, image, music, and gesture using methods that are primarily analytic, critical, or speculative and that apply rational thought to construct and assess opinions, ideas, and arguments.

Acceptable courses include philosophy, ancient and modern languages, literature, ~~law,~~ history, philosophy, religion, visual, performing and applied arts, and language courses other than English.

C. Quantitative Reasoning

Quantitative Reasoning is defined as the study of quantitative methods and rational, systematic steps based on sound mathematical procedures to arrive at a conclusion.

Acceptable courses include algebra, analytic and descriptive geometry, trigonometry, calculus, logical reasoning, pre-calculus, linear algebra, and statistics.

D. Natural Sciences

Natural Sciences is defined as the study of the universe using a naturalistic approach, which is understood as obeying rules or laws of natural origin. The term Natural Science is also used to distinguish study in those fields that use the scientific method to study science and nature.

Acceptable courses include astronomy, astrophysics, bacteriology, biology, chemistry, earth science, physics, geology, zoology, microbiology, biochemistry, and botany.

E. Social Sciences

Social Science~~s~~ is defined as the study of the fields of academic scholarship that explore human society.

Acceptable courses include: anthropology, archaeology, economics, geography, history, law, linguistics, human geography, political science, gender studies, racial/ethnic studies, geography, international studies, psychology, and sociology.

Satisfying deficiencies in General Education

Relevant courses may be taken at any university, college, or community college that is accredited by one of the six regional accrediting associations in the United States: Middle States Association of Colleges and Schools, North Central Association of Colleges and Schools, New England Association of Schools and Colleges, Northwest Commission on Colleges and Universities, Southern Association of Colleges and Schools, and Western Association of Schools and Colleges. Information concerning regional accreditation is usually found on each academic institution's website. It can also be obtained from the admissions office or the registrar.

If a U.S. regionally accredited academic institution grants credit in relevant subjects on the basis of equivalency examinations administered by the institution or by the College Entrance Examination Board's Advance Placement Program, and if that credit is listed on an official transcript issued by that institution, then that credit can be used to satisfy the general education requirement.

The College Level Examination Program (CLEP) can be used to satisfy the general education requirement. The score required varies from subject to subject. Further information can be obtained from NAAB.

2. History a~~A~~nd Theory, and Human Behavior~~, And Environment~~

A total of at least ~~16~~ 12 semester credit hours, with minimum requirements for each category as indicated:

A. ~~>~~ History and Theory (6)
B. ~~>~~ Human Behavior (3)

~~> Environment (3)~~

The remaining four (43) semester credit hours may be in any one or more categories of the History and Theory, and Human Behavior~~, and Environment~~ subject area.

A. History a~~A~~nd Theory

History and Theory are defined as the study of the traditions of architecture and the built environment, landscape architecture, urban form, and construction by which diverse human needs, values, and aspirations have been addressed in response to cultural, climatic, ecological, technological, socioeconomic, and public health constraints.

Acceptable topics include historical movements in architecture~~;~~, history of architecture, landscape architecture, and urbanism ~~design~~, history of building technology, and theory of architecture.

Courses in art history, cultural history, economic history, and political history are NOT acceptable in this category, but they are acceptable in General Education.

B. Human Behavior

Human Behavior is defined as the study of the characteristics, nature, and behavioral norms of diverse individuals and groups that relate to the economic, physical and spatial environments in which they function, and to the processes of environmental modification and change.

Acceptable topics include the study of environmental psychology, ergonomics, human behavior, post-occupancy studies, cultural diversity, social diversity, and social response to the environment.

Satisfying deficiencies in History and Theory and Human Behavior

Relevant courses may be taken at any university, college, or community college that is accredited by one of the six regional accrediting associations in the United States: Middle States Association of Colleges and Schools, North Central Association of Colleges and Schools, New England Association of Schools and Colleges, Northwest Commission on Colleges and Universities, Southern Association of Colleges and Schools, and Western Association of Schools and Colleges.

Courses taken at community or junior colleges are acceptable for satisfying deficiencies in the History and Theory and Human Behavior requirement.~~category and the Human Behavior category only~~.

~~**Satifying Deficiencies in Environment**~~

~~Courses to satisfy deficiencies in this category may be taken at either~~

~~> Four-year institutions that offer a professional degree program accredited by NAAB or CACB/CCCA. A list of institutions with NAAB- and CACB/CCCA-accredited programs can be found here.~~

~~OR~~

~~> Four-year institutions that offer a pre-professional degree in architecture but do not also offer a NAAB- or CACB/CCCA-accredited program.~~

All courses must be approved by NAAB in advance

~~If a U.S. regionally accredited academic institution grants credit in relevant subjects on the basis of equivalency examinations~~

~~administered by the institution, and if that credit is listed on an official transcript issued by that institution, then that credit can be used to satisfy these subject area requirements.~~

3. ~~Technical Systems~~Building Practices

A total of at least ~~24~~ 27 semester credit hours, with minimum requirements for each category as indicated:

A. ~~>~~Structural Systems (6)
B. ~~>~~Environmental Control Systems (6)
C. ~~>~~Construction Materials and Assemblies (6)
D. ~~>~~Building Service ~~Systems~~ and Building Enclosure~~Envelope/ Enclosure~~ Systems (3)
E. Technical Documentation (3)
~~D.~~F. Financial Considerations (3)

~~The remaining three (3) hours may be in any one or more categories of the Technical Systems subject area.~~

A. Structural Systems

Structural Systems are defined as the study of the basic structural elements of buildings, their interaction as a support system, the forces that act on and in buildings, and the principles, theory, and appropriate applications of these systems.

Acceptable topics include analysis of structural systems, construction, construction assemblies, determinate and indeterminate systems, equilibrium, forces and force systems, free body diagrams, gravity, lateral and seismic forces, loads, mechanics of materials, resolution of external forces, shear and bending moments, sizing of structural members, stability, statics, strength of materials, stress and strain, structural elements, structural systems in wood, steel and concrete, and theory of structures.

B. Environmental Control Systems

Environmental Control Systems are defined as the study of building elements that pertain to the modification of the microclimate for purposes of human use and comfort.

Acceptable topics include acoustics, air conditioning, building core systems, energy, energy efficiency, energy transmission, environmental systems, active and passive heating and cooling systems, lighting (natural and artificial), solar geometry, natural ventilation, indoor air quality, solar energy utilization, and sustainability.

C. Construction ~~materials~~ Materials and Assemblies

Construction Materials and Assemblies are defined as the study of the basic principles and appropriate selection and application of~~characteristics of building materials and how they are used, made, and appropriately applied in a building project~~ interior and exterior construction materials, finishes, products, components, and the assemblies based on their inherent performance, including environmental impact and reuse~~.~~

Acceptable topics include physical properties of building materials, fenestration, sustainable material selection, ~~detailing,~~ installation characteristics of material assemblies, ~~and~~ associated assembly cost for labor and materials, and material use and detailing.

D. Building Service ~~Systems~~ and Building ~~Envelope/~~Enclosure Systems

Building Service and Building Enclosure Systems ~~and Building Envelope/Enclosure Systems~~ are defined as the study of the appropriate selection and application of~~:~~ b~~B~~uilding s~~S~~ervice s~~S~~ystems including lighting~~, the application and performance of non-thermal~~ mechanical, plumbing, electrical, ~~control,~~ communications~~,~~ vertical transportation, security, fire protection, non-thermal mechanical, control, circulation, and signal systems and application of ~~B~~building ~~Envelope/E~~enclosure s~~S~~ystems relative

to , the performancefundamental performance, aesthetics, moisture transfer, durability, and energy. characteristics of the building envelope/enclosure.

Acceptable topics in Building Envelope/Enclosure Systems include curtain wall systems, sustainability, construction methods, facades, moisture transfer, durability, energy performance, and material use and detailing. Acceptable topics in Building Service Systems include plumbing, electrical, vertical transportation, security, control, communication, and fire protection and life safety systems.

E. **Technical Documentation.**
Technical documentation is defined as the study of preparing technically clear and accurate drawings, preparing outline specifications, and models illustrating and identifying the assembly of materials, systems, and components appropriate for a building design.

F. **Financial Considerations**
Financial considerations are defined as the study of building economics and the fundamentals of building costs, project financing, methods, and feasibility.

Acceptable topics include building costs, cost and benefit analysis, cost control, development costs, estimating, finance, life-cycle costing, site acquisition and development, and value engineering.

Satisfying deficiencies in ~~Technical Systems~~Building Practices
Courses to satisfy deficiencies in this category may be taken at either

> Four-year institutions that offer a professional degree program accredited by NAAB or CACB/CCCA. A list of institutions with NAAB- and CACB/CCCA-accredited programs can be found here.

OR

> Four-year institutions that offer a pre-professional degree in architecture but do not also offer a NAAB- or CACB/CCCA-accredited program. Courses taken at community or junior colleges are NOT acceptable for satisfying deficiencies in technical systemsbuilding practices.

All courses must be approved by NAAB in advance.

~~Courses taken at community or junior colleges are NOT acceptable for satisfying deficiencies in technical systems.~~

If a U.S.-regionally accredited academic institution grants credit in relevant subjects on the basis of equivalency examinations administered by the institution, and if that credit is listed on an official transcript issued by that institution, then that credit can be used to satisfy these subject area requirements.

45. Design
A total of at least 5042 semester credit hours with a ~~including at least one Level V design studio sequence, with a~~ minimum of eight (8) hours ~~and maximum of twelve (12) hours in each level~~in each area. The remaining ten (10) hours may be in one or more areas of Design:~~:~~

~~A. > Level I~~ Fundamental Design (8)

~~A.~~

B. ~~> Level II~~ Programming and Site Design (8)

C. ~~> Level III~~ Research and Investigative-Based Design (8)

~~> Level IV~~

D. ~~> Level V~~ Integrated Design (8)

~~The remaining ten (10) hours may be in any one or more~~

~~levels of the Design subject area with no more than twelve (12) hours in any one level.~~

Design is defined as collection of data or information, the analysis, synthesis, use of judgment, and development and communication tools and methods that architects use to understand, assess, bring together, and express the ideas that lead to a built project.

~~Design is divided into five levels. Each level requires competency in the subordinate level(s).~~

A. ~~Level I~~Fundamental Design:

~~Level I is defined as individual l~~Learning experiences that require students to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards; use basic formal, organizational and environmental principles and the capacity of each to inform~~within~~ two-dimensional and three-dimensional design; ~~spatial contexts and ordering systems; basic architectural and~~application of the fundamentals of both natural and formal ordering systems and the capacity of each; and articulating effectively and using representational media appropriate for the assignment. ~~environmental design principles, beginning user consciousness with a familiarity of spatial analysis, natural and formal ordering systems, design process methodology, and development of communication skills using appropriate media; and design literacy.~~

B. ~~Level II~~Programming and Site Design:

Learning experiences in which students are required to prepare a comprehensive program for an architectural project that includes an assessment of client and user needs; an inventory of spaces and their requirements; an analysis of site conditions (including existing buildings); a review of the relevant building codes and standards, including relevant sustainability requirements, and an assessment of their implications for the project; and a definition of site selection and design assessment criteria; to respond to site characteristics, including urban context and developmental patterning, historical fabric, soil, topography, ecology, climate, and building orientation, in the development of a project design.~~Level II is defined as individual learning experiences with emphasis on the environment, precedent, user-space study, investigative skills, and further design skill development; introduction of qualitative technical materials; a minimum proficiency in the design and communication of simple buildings with an introductory understanding of client need assessment, site (including existing building) assessment, construction and structural systems; and data analysis, programming, site analysis, and design.~~

C. ~~Level III~~Research and Investigative-Based Design:

Learning experiences that require students to utilize methods for gathering, assessing, recording, and comparatively evaluating relevant information and performance in order to support conclusions related to a specific project or assignment; to use theoretical and applied research methodologies and practices necessary in the design process; to examine and comprehend the fundamental principles present in relevant precedents and make informed choices about the incorporation of such principles into architecture projects~~Level III is defined as individual and group learning experiences with emphasis on simple and complex building case studies with applied research and qualitative technical input; individual and group projects; development of total building synthesis design skills including building envelope/enclosure systems and assemblies; a general proficiency in the complete design of simple buildings with a minimum ability to deal with complex buildings and multi-building complexes; site analysis and design, principles of sustainable design related to manmade and natural resources,~~

~~healthful environments, and reduced impact on the environment; and visual representation of each stage of the programming and design process including traditional and digital media.~~

D. ~~Level IV~~Integrated Design:

Learning experiences that require the student to evaluate options and reconcile the implications of design decisions across systems and scales; to synthesize variables from diverse and complex systems into an integrated architectural solution, while responding to environmental stewardship goals across multiple systems including building design and detailing, planning, programming with integrated structural, mechanical, environmental, building services systems, accessibility, site conditions, life safety, building enclosure systems and assemblies. ~~Level IV is defined as individual or group learning that emphasizes the synthesis of complex building and multi-building complexes within the urban context; integration of technical information; ability to create technical drawings and specifications; general proficiency in the total synthesis of complex buildings and related systems; structural, environmental, service, transportation, communication, life-safety, and accessibility systems; and the social ramifications of planning and architecture. Studio learning at this level may integrate the use of digital media in design decision-making. Level IV requires collaborative group projects and requires mastery of Levels I, II, and III.~~

~~**E. Level V:** Level V is defined as individual or group learning that emphasizes comprehensive design and complex building design, planning, and urban design. Level V work must indicate a mastery of data collection, analysis, programming, planning, building design; an understanding of the basic principles of structural design, building service system design, building envelope/enclosure systems, landscape design; facility in other related knowledge and skills; and a full range of representational skills including traditional and digital media. Level V requires collaborative group projects and requires mastery of Levels I, II, III, and IV.~~

Satisfying deficiencies in design

All deficiencies in design must be satisfied in studio courses offered either within a professional degree program accredited by the NAAB or the CACB/CCCA or in a pre-professional architecture degree program offered at a four-year institution accredited by a U.S. regional accrediting agency.

Studios must be administered or monitored by a member of the design faculty and must be taken for academic credit.

A list of NAAB- and CACB/CCCA-accredited programs can be found at ~~www.naab.org/architecture_programs/home.~~

~~www.naab.org/architecture_programs/www.naab.org/architecture_programs/www.naab.org/architecture_programs/.~~

Courses in graphic communication, computer-assisted design, and digital design media (e.g. building information modeling programs) may be used to fulfill Levels II-IV when they are clearly integrated with studio courses. If such courses are taken on their own and without integration in a specific studio, they will be allocated as electives. Completion of a comprehensive studio in Level IV or Level V is required.

All design studio courses must be approved by NAAB in advance.

54. Professional Practice

A total of at least ~~nine~~ twelve (12~~9~~) semester credit hours are required with a minimum of three (3) in Laws and Regulations and three (3) in Ethics and Professional Conduct. ~~At least three (3) hours must be~~

~~in:~~ The remaining six (6) must be distributed across the other three categories.

~~> Laws and Regulations~~

~~A. The other six (6) hours must be in the following categories with no more than three (3) hours in any one category:~~

~~B.~~A. ~~> Project Process~~Stakeholder Roles in Architecture (3 max)

~~C.~~B. ~~>~~ Project ~~Economics~~ Management (3 max)

~~D.~~C. ~~>~~ Business Management (3 max)

~~E.~~D. ~~> Technical Documentation~~Laws and Regulations (3 min)

~~F.~~E. ~~>~~ Ethics and ~~Social Responsibility~~Professional Conduct (3min)

A. ~~Project Process~~Stakeholder Roles in Architecture

~~Project Process~~Stakeholder Roles in Architecture is defined as the study of the relationships among key stakeholders in design process (client, contractor, architect, user groups, and local community) and the architect's role to reconcile stakeholder needs.

Acceptable topics include: Urban and community center design practice studios, and special topic courses on public good projects and professional practice courses identifying the roles and responsibilities of stakeholders.

~~entire range of activities involved in a typical architectural design project as it moves from inception through completion of construction. These activities include not only those which the architect carries out, but also those of other professionals.~~

~~Acceptable topics include bidding and negotiation, client relationships, leadership and collaboration, construction documents, contracts, design development, problem identification, project management, programming, site analysis, building code and accessibility analysis, and specifications.~~

B. Project ~~Economics~~ Management

Project ~~Economics~~ Management is defined as the study of the entire range of activities involved in a typical architectural design project as it moves from inception through completion of construction including methods for selecting consultants and assembling teams; identifying work plans, project schedules, and time requirements; and recommending project delivery methods.~~financial aspects of building, including the economics of development.~~

Acceptable topics include bidding and negotiation, client relationships, leadership and collaboration, construction documents, construction management, contracts, design development, problem identification, project management, programming, site analysis, building code and accessibility analysis, and specifications.~~building costs, cost and benefit analysis, cost control, development costs, estimating, finance, life-cycle costing, site acquisition and development, and value engineering.~~

C. Business Management

Business Management is defined as the study of the concepts, standards, and ~~procedures~~ practices related to different forms of organization for architectural practice~~, including private and corporate offices as well as public-sector organizations and agencies~~.

Acceptable topics include business management, financial management, risk management, office management, office organization, customer service, legal agreements, marketing, negotiating legal agreements, legal and licensure responsibilities, professional liability, risk management, and rules of professional ~~rules of~~ conduct.

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D. Laws and Regulations

Laws and Regulations are defined as the study of the body of common law, legislation, codes and standards, and regulation in the United States~~, including rules of professional conduct~~ that affect architectural practice.

Acceptable topics include accessibility standards, barrier-free design, building codes, laws affecting architectural practice, environmental regulation, life-safety systems, professional liability, professional service contracts, professional registration, ~~professional rules of conduct,~~ tax laws, and zoning regulations. Courses in foreign law are NOT acceptable, but may be acceptable in the Electives subject area.

~~**E. Technical Documentation** Technical Documentation is defined as the study of the ability to prepare technically clear and accurate drawings, outline specifications, and models illustrating and identifying the assembly of materials, systems, and components appropriate for a building design.~~

E~~F~~. Ethics and ~~Social Responsibility~~Professional Conduct

Ethics and ~~Social Responsibility~~Professional Conduct are defined as the study of ~~the application~~ethical issues involved in the exercise of professional judgment ~~and leadership on ethical subjects regarding social, legal, political, and cultural issues~~ in architectural design and practice. ~~It~~ This also includes the role of the NCARB Rules of Conduct and the AIA Code of Ethics in defining professional conduct.~~architect's responsibility to work in the public interest, to respect historic assets, and to improve the quality of life for local and global societies.~~

Satisfying deficiencies in Practice

Relevant courses may be taken at any university, college, or community college that is accredited by one of the six regional accrediting associations in the United States: Middle States Association of Colleges and Schools, North Central Association of Colleges and Schools, New England Association of Schools and Colleges, Northwest Commission on Colleges and Universities, Southern Association of Colleges and Schools, and Western Association of Schools and Colleges.

All courses must be approved in advance by the NAAB.

If a U.S.-regionally accredited academic institution grants credit in relevant subjects on the basis of equivalency examinations administered by the institution, and if that credit is listed on an official transcript issued by that institution, then that credit can be used to satisfy these subject area requirements.

~~**5. Design** A total of at least 50 semester credit hours including at least one Level V design studio sequence, with a minimum of eight (8) hours and maximum of twelve (12) hours in each level:~~
~~> Level I~~
~~> Level II~~
~~> Level III~~
~~> Level IV~~
~~> Level V~~

~~The remaining ten (10) hours may be in any one or more levels of the Design subject area with no more than twelve (12) hours in any one level.~~

~~Design is defined as the analysis, synthesis, use of judgment, and development and communication tools and methods that architects use to understand, assess, bring together, and express the ideas that lead to a built project.~~

~~Design is divided into five levels. Each level requires competency in the subordinate level(s).~~

~~**A. Level I:**~~

~~Level I is defined as individual learning experiences within two-~~

dimensional and three-dimensional spatial contexts and ordering systems; basic architectural and environmental design principles, beginning user consciousness with a familiarity of spatial analysis, natural and formal ordering systems, design process methodology, and development of communication skills using appropriate media; and design literacy.

B. Level II:

Level II is defined as individual learning experiences with emphasis on the environment, precedent, user-space study, investigative skills, and further design skill development; introduction of qualitative technical materials; a minimum proficiency in the design and communication of simple buildings with an introductory understanding of client need assessment, site (including existing building) assessment, construction and structural systems; and data analysis, programming, site analysis, and design.

C. Level III: Level III is defined as individual and group learning experiences with emphasis on simple and complex building case studies with applied research and qualitative technical input; individual and group projects; development of total building synthesis design skills including building envelope/enclosure systems and assemblies; a general proficiency in the complete design of simple buildings with a minimum ability to deal with complex buildings and multi-building complexes; site analysis and design, principles of sustainable design related to manmade and natural resources, healthful environments, and reduced impact on the environment; and visual representation of each stage of the programming and design process including traditional and digital media.

D. Level IV: Level IV is defined as individual or group learning that emphasizes the synthesis of complex building and multi-building complexes within the urban context; integration of technical information; ability to create technical drawings and specifications; general proficiency in the total synthesis of complex buildings and related systems; structural, environmental, service, transportation, communication, life-safety, and accessibility systems; and the social ramifications of planning and architecture. Studio learning at this level may integrate the use of digital media in design decision-making. Level IV requires collaborative group projects and requires mastery of Levels I, II, and III.

E. Level V: Level V is defined as individual or group learning that emphasizes comprehensive design and complex building design, planning, and urban design. Level V work must indicate a mastery of data collection, analysis, programming, planning, building design; an understanding of the basic principles of structural design, building service system design, building envelope/enclosure systems, landscape design; facility in other related knowledge and skills; and a full range of representational skills including traditional and digital media. Level V requires collaborative group projects and requires mastery of Levels I, II, III, and IV.

Satisfying deficiencies in design

All deficiencies in design must be satisfied in studio courses offered either within a professional degree program accredited by the NAAB or the CACB/CCCA or in a pre-professional architecture degree program offered at a four-year institution accredited by a U.S. regional accrediting agency.

Studios must be administered or monitored by a member of the design faculty and must be taken for academic credit.

A list of NAAB- and CACB/CCCA-accredited programs can be found at www.naab.org/architecture_programs/.

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~~Courses in graphic communication, computer-assisted design, and digital design media (e.g. building information modeling programs) may be used to fulfill Levels II-IV when they are clearly integrated with studio courses. If such courses are taken on their own and without integration in a specific studio, they will be allocated as electives. Completion of a comprehensive studio in Level IV or Level V is required.~~

~~All design studio courses must be approved by NAAB in advance.~~

6. ~~Elective Subjects~~Optional Studies

The minimum number of semester credit hours in each subject area listed above total 138~~144~~ ~~hours~~semester credit hours. The additional ~~16~~ 12 ~~hours~~ semester credit hours may be in any one or more of the five subject areas and/or acceptable ~~Electives~~Optional Studies.

Acceptable ~~Electives~~ topics in this area include architecture, business administration, computer science, engineering, interior design, landscape design, law, public administration, urban design, and other subjects that in the opinion of NAAB are acceptable toward ~~Electives~~Optional Studies.

NCARB Education Standard

A comparison of the current and proposed requirements

Current

Subject Area and Category	Semester Credit Hour Requirement
General Education	45 Hours
A. Communication Skills	3 Hours min. in English Composition
B. Humanities and Arts	N/A
C. Quantitative Reasoning	N/A
D. Natural Sciences	N/A
E. Social Sciences	N/A
History and Theory, Human Behavior, and Environment	16 Hours
A. History and Theory	6 Hours min.
B. Human Behavior	3 Hours min.
C. Environment	3 Hours min.
Technical Systems	24 Hours
A. Structural Systems	6 Hours min.
B. Environmental Control Systems	6 Hours min.
C. Construction Materials and Assemblies	6 Hours min.
D. Building Service Systems and Building Envelope/Enclosure Systems	3 Hours min.
Practice	9 Hours
A. Project Process	3 Hours max.
B. Project Economics	3 Hours max.
C. Business Management	3 Hours max.
D. Laws and Regulations	3 Hours min.
E. Technical Documentation	3 Hours max.
F. Ethics and Social Responsibility	3 Hours max.
Design	50 Hours
A. Level I	8 Hours min. / 12 Hours max.
B. Level II	8 Hours min. / 12 Hours max.
C. Level III	8 Hours min. / 12 Hours max.
D. Level IV	8 Hours min. / 12 Hours max.
E. Level V	8 Hours min. / 12 Hours max.
Electives	16 Hours
Total	160 Hours

Proposed

Subject Area and Category	Semester Credit Hour Requirement
General Education	45 Hours
A. Communication Skills	3 Hours min. in English Composition
B. Humanities and Arts	N/A
C. Quantitative Reasoning	N/A
D. Natural Sciences	N/A
E. Social Sciences	N/A
History and Theory, and Human Behavior	12 Hours
A. History and Theory	6 Hours min.
B. Human Behavior	3 Hours min.
Building Practices	27 Hours
A. Structural Systems	6 Hours min.
B. Environmental Control Systems	6 Hours min.
C. Construction Materials and Assemblies	6 Hours min.
D. Building Service and Building Enclosure Systems	3 Hours min.
E. Technical Documentation	3 Hours min.
F. Financial Considerations	3 Hours min.
Professional Practice	12 Hours
A. Stakeholder Roles in Architecture	3 Hours max.
B. Project Management	3 Hours max.
C. Business Management	3 Hours max.
D. Laws and Regulations	3 Hours min.
E. Ethics and Professional Conduct	3 Hours min.
Design	42 Hours
A. Fundamental Design	8 Hours min.
B. Programming and Site Design	8 Hours min.
C. Research and Investigative Based Design	8 Hours min.
D. Integrated Design	8 Hours min.
Optional Studies	12 Hours
Total	150 Hours

STATE OF TENNESSEE
DEPARTMENT OF COMMERCE AND INSURANCE
STATE BOARD OF ARCHITECTURAL & ENGINEERING EXAMINERS

CONTINUING EDUCATION PROCEDURE

1. Renewal procedure. A renewal notice shall be mailed on which the registrant may certify his or her completion of the required number of Professional Development Hours (PDH's). Registrants may also make this certification by renewing online.
2. Audit Selection and Documentation. Each month, five (5) percent of active architects and engineers who have renewed during that month will be selected for audit. Five (5) percent of active landscape architects and interior designers will be selected on a quarterly basis. All active disciplinary respondents will also be audited if the disciplinary action originated in Tennessee. Registrants selected for audit must supply the records specified in rule 0120-05-.10 (Records). This documentation shall be submitted to the Board office within thirty (30) days of the postmark date of the audit notice.
3. Review by Board Staff. The submitted records shall be reviewed by Board staff for completeness. If all of the activities claimed by a registrant to meet the minimum requirements were offered by providers on the list of acceptable providers maintained by the Board (see below), then Board staff may approve the audit, provided that all required documentation has been submitted. Board staff may also approve audits when transcripts or other records are submitted from the American Institute of Architects (AIA), the Registered Continuing Education Program, the Landscape Architecture Continuing Education System (LA CES), the Interior Design Continuing Education Council (IDCEC), or a national regulatory council ~~the Council for Interior Design Qualification (CIDQ)~~ showing that the minimum requirements have been satisfied.
4. Review by Board Members. If an audit does not meet the above conditions for approval by Board staff, the submitted records shall be reviewed by a majority of the Board members who review licensure applications for each respective profession (architecture, engineering, landscape architecture, interior design). ~~Each Board member shall complete his or her review within ten (10) business days of receipt. Additional time may be allowed for a committee meeting when the registrant's information is in dispute.~~
5. Continuing Education Reciprocity. If a registrant selected for audit is deemed to have met the continuing education requirements of Tennessee in accordance with rule 0120-05-.13 (Reciprocity), the registrant may furnish a copy of his or her wallet card or license from his or her home jurisdiction in lieu of submitting the summary log and attendance verification records.
6. Additional Information. Additional information or evidence may be requested of the registrant by the Board. The registrant shall have thirty (30) days from receipt of the Board's certified letter to return the requested information or evidence.
7. Disallowance. If the Board disallows claimed PDH credits, the registrant shall within one hundred eighty (180) days after notification of same either substantiate the original claim or earn other credit to meet the minimum requirements (Rule 0120-05-.11). A registrant failing to supply the requested records within this time frame shall be deemed in noncompliance and may be subject to disciplinary action.

8. List of Acceptable Providers. Although the Board will not pre-approve continuing education courses or providers, the Board has established a list of providers whose courses are generally accepted (attached). Courses or providers approved by the AIA, the Registered Continuing Education Program, the Landscape Architecture Continuing Education System (LA CES), ~~or~~ the Interior Design Continuing Education Council (IDCEC), a national regulatory council, or another state registration board are generally acceptable.

Adopted 11/16/2006
Revised and adopted 4/23/2009
Revised and adopted 10/22/2010
Revised and adopted 6/12/2013
Revised and adopted _____

TENNESSEE BOARD OF ARCHITECTURAL & ENGINEERING EXAMINERS
ACCEPTABLE CONTINUING EDUCATION PROVIDERS

Continuing education courses offered by the following providers are generally accepted by the Board:

Local, state, and national professional and technical societies (such as AIA, NSPE, ASCE, etc.)

National regulatory councils (NCARB, NCEES, CLARB, and CIDQ)

Government agencies

Colleges and universities

In addition, courses or providers approved by the AIA, the Registered Continuing Education Program, the Landscape Architecture Continuing Education System (LA CES), ~~or~~ the Interior Design Continuing Education Council (IDCEC), a national regulatory council, or another state registration board are generally acceptable.

NOTE: The Board does not pre-approve continuing education courses or providers. Although courses offered by the above providers are generally acceptable, it is still the registrant's responsibility to determine if specific courses meet the criteria of the rules. Registrants are not required to choose activities offered by the above providers and are free to earn hours through other providers, provided that those activities meet Tennessee's requirements. All courses claimed for continuing education credit must be relevant to the practice of architecture, engineering, landscape architecture, or interior design.

MINUTES OF A MEETING OF THE
TENNESSEE BOARD OF ARCHITECTURAL AND ENGINEERING EXAMINERS
University of Tennessee Chattanooga
Chattanooga, Tennessee
Friday, October 16, 2015

CALL TO ORDER

Robert Campbell, Chair, called the regular meeting of the Tennessee Board of Architectural and Engineering Examiners to order at 8:35 a.m. on October 16, 2015, at the University of Tennessee Chattanooga (Maytag Room), in Chattanooga, Tennessee. A quorum was declared present.

The following **Board members** were present:

Susan Ballard	Registered Interior Designer
Hal Balthrop	Professional Engineer
Robert Campbell, Jr.	Professional Engineer
Jerome Headley	Registered Architect
Philip Lim	Professional Engineer
Bill Lockwood	Registered Landscape Architect
Frank Wagster	Registered Architect

The following **Board member** was absent:

Rick Thompson	Registered Architect

The following **Associate Engineer members** were present:

Richard Bursi	Professional Engineer
Stephen King	Professional Engineer
Laura Reinbold	Professional Engineer

The following **Board staff** was present:

John Cothron	Executive Director
Ellery Richardson	Legal Counsel
Zack Nitzschke	Paralegal
Wanda Phillips	Office Manager
Wanda Garner	Administrative Assistant

The following **guests** were present for part or all of the meeting:

Mack B. McCarley, Professional Engineer (PE), ODM Engineering Assoc. LLC, Chattanooga
Dallas Rucker, City of Chattanooga, Chattanooga

Vance Travis, Registered Architect (RA), TWH, Chattanooga
Gary B. Hilbert, City of Chattanooga, Chattanooga
Jack Hopkins, PE, Applied Engineering, Knoxville
Neslihan Alp, PE, University of Tennessee Chattanooga
Karna Levitt, Registered Landscape Architect, City of Chattanooga, Chattanooga
Wayon Hines, PE, EWH Engineering, Ooltewah
Christopher L. Davis, CD Technical Services, Harrison

Guests were introduced and no changes were made to the agenda.

OPEN FORUM

Christopher Davis, a registered engineer in the State of Georgia, has started a business in Tennessee related to the practice of engineering. He sought clarification from the Board regarding the services he could advertise and offer in Tennessee without registration.

Board Response

The work, as described by Mr. Davis, does not constitute the practice of engineering. Mr. Cothron will provide a formal written response from the Board.

Wayon Hines, PE, expressed concern that many plans reviewers are not licensed design professionals and asked if it was appropriate for them to make comments and suggestions on submitted plans.

Board Response

Plans reviewers are not required to be licensed.
Mr. Balthrop reminded Mr. Hines that appeal processes are in place if one disagrees with a reviewer's suggestions.
Mr. Wagster pointed out that plans reviewers/building officials have the right to require more than the codes require to protect the public's health, safety and welfare.

Neslihan Alp, Interim Dean of UTC's College of Engineering and Computer Science, asked if there were any intentions of changing the statute to make engineering technology degrees acceptable as the education requirement for registration as an engineer.

Board Response

No. Mr. Campbell noted that there are substantial differences between an engineering technology program and an engineering program, and the Board does not feel that a technology program adequately prepares an individual to practice as a professional engineer.

Jack Hopkins, PE, expressed concern that the public is being endangered by building officials and inspectors with a lack of knowledge and training and by engineers with an inadequate understanding of codes. He also expressed concern regarding poor communication by building officials.

Board Response

Mr. Campbell summarized Board member comments:

- File a complaint if you see evidence of substandard practice.
- Design professionals must at all times recognize the primary obligation to protect the health, safety and welfare of the public in the performance of their professional duties.
- Codes change quickly; we must police and educate the profession.

Ms. Richardson reiterated that the Board can uphold the law if it knows about the "bad actors."

Vance Travis, Registered Architect, commented on various subjects:

- The work of Board and staff;
- Qualifications-based selection;
- Construction administration;
- Financial matters; and
- The creation of definitions for the practice of architecture, engineering and landscape architecture.

Board Response

Mr. Campbell stated that the Board is cognizant of Mr. Travis' concerns.

Dallas Rucker, stated that

- the Board's *Reference Manual for Building Officials and Design Professionals* is very helpful;
- the State Fire Marshal's Office seems to be slow to adopt new codes, and
- the state needs to have uniform codes across the state.

Mr. Rucker invited Mr. Cothron, Ms. Richardson and Board members to attend meetings of the Tennessee Building Officials Association (TBOA).

Board Response

Mr. Bursi and Mr. Wagster urged Mr. Rucker and other building officials to inform the Board of any rule violations they may see.

Mack McCarley, PE, thanked the Board members for their service and, specifically, for grants given to colleges and universities in Tennessee. He pointed out that the professions, the building officials and the Board all work together as a team.

CONSENT AGENDA (attached)

Motion was made by Mr. Lockwood and seconded to approve the minutes of the August 12, 2015 meeting. The motion passed unanimously.

Motion was made by Mr. Lockwood and seconded to approve the Complaints for Board Decision. The motion carried unanimously.

PROFESSIONAL SOCIETY REPORTS
There were no professional society representatives present.

DIRECTOR'S REPORT

1. Mr. Cothron reported his activities and those of his staff and Board members.
2. *Complaint Data* was presented for informational purposes only. (attached)
3. *Licensing Data* was presented for informational purposes only. (attached)
4. *Financial Data* was presented for informational purposes only. (attached)

Break 10:34-10:48 a.m.

LEGAL CASE REPORT (presented by Ellery Richardson)

- *Case No. L15-AEL-RBS-2015016881* *Complaint #201501688*
  Motion was made by Mr. Lim and seconded to authorize an informal conference conducted by Mr. King. The motion passed unanimously.
- Motion was made by Mr. Lockwood and seconded to open a complaint regarding an issue that arose out of a previous informal conference (Case No. L13-AEL-RBS-2013005781). If the respondent's reply to the complaint warrants it, the reviewer is authorized to hold an informal conference with the respondent. The motion passed unanimously.

UNFINISHED BUSINESS

- *Action Items* (attached)
  The action items taken from the August meeting were reviewed and the required action had either been taken or is in process.
- *Qualification-Based Selection* (attached) is presented for informational purposes only.

NEW BUSINESS

- *Authorization of Travel and Speakers*
  Motion was made by Mr. Balthrop and seconded
  - to authorize Ms. Ballard to speak to students at O'More College of Design, the University Tennessee at Knoxville, Middle Tennessee State University, Pellissippi State Community College and East Tennessee State University regarding interior designer registration. (She will ask former Board member, Leslie Shankman-Cohn, to speak to students at the University of Memphis.) and
  - to authorize Mr. Cothron and Mr. Bursi to speak to engineering students at University of Memphis regarding PE licensure.

  The motion passed unanimously.

- *Proposed Travel for 2016* (attached)
  Motion was made by Mr. Lockwood and seconded to raise the "Miscellaneous expenses for in-state speaking engagements" to $2,000.00, and to approve the amended proposed travel for 2016. The motion passed unanimously.

- *Application/Examination Deadline Dates* (attached)
  Motion was made by Mr. Lim and seconded to approve the proposed Application/Examination Deadline Dates. The motion passed unanimously.

COMMITTEE REPORTS

- *Interior Design Committee Report*
  The Interior Design Committee, through Ms. Ballard, reported on topics discussed.
  The minutes of the Interior Design Committee meeting follow these minutes.

- *Landscape Architect Committee Report*
  The Landscape Architect Committee, through Mr. Lockwood, reported on topics discussed.
  The minutes of the Landscape Architect Committee meeting follow these minutes.

- *Architect Committee Report*
  The Architect Committee, through Mr. Headley and Mr. Wagster, reported on topics discussed.
  The minutes of the Architect Committee meeting follow these minutes.

- *Engineer Committee Report*
  The Engineer Committee, through Mr. Balthrop, reported on topics discussed.
  The minutes of the Engineer Committee meeting follow these minutes.

- *Law and Rules/Policies Committee*
  The Law and Rules/Policies Committee, through Mr. Campbell, reported on topics discussed.
  The minutes of the Law and Rules/Policies Committee meeting follow these minutes.

- *Grants to Higher Education Committee*
  The Grants to Higher Education Committee, through Ms. Ballard, reported on topics discussed.
  The minutes of the Grants to Higher Education Committee meeting follow these minutes.
  - Motion was made by Mr. Headley and seconded to approve the proposed Grants Distribution (attached). The motion passed unanimously.
  - The Grants Committee, through Ms. Ballard, moved to amend the Grant Guidelines by changing the grant application deadline to September 15.
  - The Grants Committee, through Ms. Ballard, moved to delete the section in the Grant Guidelines regarding subrecipient monitoring plans. The motion passed unanimously.

- *Finance Committee*
  The Finance Committee, through Mr. Wagster, reported on topics discussed.
  The minutes of the Finance Committee meeting follow these minutes.

- *Publications Committee*
  The Publications Committee, through Mr. King, reported on topics discussed.
  The minutes of the Publications Committee meeting follow these minutes.

- *Licensure Outreach Committee*
  The Licensure Outreach Committee, through Mr. Lockwood, reported on topics discussed.
  The minutes of the Licensure Outreach Committee meeting follow these minutes.

- *Continuing Education Committee*
  The Continuing Education Committee, through Mr. Wagster, reported on topics discussed.
  The minutes of the Continuing Education Committee meeting follow these minutes.

It was agreed that Mr. Campbell will personally give Mr. Wilson Borden his Emeritus Certificate.

The meeting adjourned at 12:23 p.m.

Attachments

MINUTES
BOARD OF ARCHITECTURAL AND ENGINEERING EXAMINERS
INTERIOR DESIGN COMMITTEE MEETING
The University of Tennessee at Chattanooga
Chattanooga, Tennessee
October 14, 2015 – 1:00 P.M.

CALL TO ORDER

Susan Ballard, Committee Chair, called the Interior Design Committee meeting to order at 1:00 p.m. on October 14, 2015, at the University of Tennessee at Chattanooga (Maytag Room), in Chattanooga, Tennessee.

The following **Board members** were present:

Susan Ballard, R.I.D.	Chair
Jerry Headley, R.A.	Architect Member

A quorum was present.

The following **Board staff** was present:

John Cothron	Executive Director

ANNOUNCEMENTS

Ms. Ballard announced that the American Society of Interior Designers (ASID) is celebrating their 40th anniversary this year; she shared statistics on the interior design profession provided by ASID. Also, the University of Tennessee at Chattanooga is adding a master's degree program in interior design. The annual conference of the Council for Interior Design Qualification (CIDQ) is scheduled for November 13-14, in Atlanta, Georgia.

NEW BUSINESS

OUTREACH EFFORTS

Committee members discussed efforts to promote interior designer registration, which would include presentations at schools.

POTENTIAL LAW, RULE, AND POLICY CHANGES

Committee members agreed that Rule 0120-04-.09 (the "grandfathering" rule for interior designers) should be deleted since it is now obsolete.

Adjourn. The Chair adjourned the meeting at 1:20 p.m.

MINUTES
BOARD OF ARCHITECTURAL AND ENGINEERING EXAMINERS
LANDSCAPE ARCHITECT COMMITTEE MEETING
The University of Tennessee at Chattanooga
Chattanooga, Tennessee
October 14, 2015 – 1:30 P.M.

CALL TO ORDER

Bill Lockwood, Committee Chair, called the Landscape Architect Committee meeting to order at 1:30 p.m. on October 14, 2015, at the University of Tennessee at Chattanooga (Maytag Room), in Chattanooga, Tennessee.

The following **Board members** were present:

Bill Lockwood, R.L.A.	Chair
Frank Wagster, R.A.	Architect Member
Robert Campbell, Jr., P.E.	Engineer Member

A quorum was present.

The following **Board staff** was present:

John Cothron	Executive Director

NEW BUSINESS

POTENTIAL LAW, RULE, AND POLICY CHANGES

The committee did not support adding a definition of landscape architecture to the law at this time. It was noted that the Council of Landscape Architectural Registration Boards (CLARB) is in the process of revising their *Model Law*, so any action would need to be delayed until after the *Model Law* is revised next year.

CLARB ANNUAL MEETING REPORT

Mr. Lockwood reviewed a written report on the 2015 CLARB Annual Meeting.

Adjourn. The Chair adjourned the meeting at 1:55 p.m.

MINUTES
BOARD OF ARCHITECTURAL AND ENGINEERING EXAMINERS
ARCHITECT COMMITTEE MEETING
The University of Tennessee at Chattanooga
Chattanooga, Tennessee
October 14, 2015 – 2:00 P.M.

CALL TO ORDER

In the absence of Committee Chair Rick Thompson, Jerry Headley called the Architect Committee meeting to order at 2:00 p.m. on October 14, 2015, at the University of Tennessee at Chattanooga (Maytag Room), in Chattanooga, Tennessee.

The following **Board members** were present:

Frank Wagster, R.A.	West TN Architect Member
Jerry Headley, R.A.	Middle TN Architect Member

A quorum was present.

The following **Board staff** was present:

John Cothron	Executive Director

NEW BUSINESS

APPLICATIONS AND AUDITS FOR REVIEW, DISCUSSION AND SIGNATURE

There were no applications or audits for discussion.

POTENTIAL LAW, RULE, AND POLICY CHANGES

The committee expressed support for defining the professions in the law.

Committee members discussed the need for the experience duration requirement for architect exam applicants, which is currently three (3) years for most applicants. Many applicants are now completing the Intern Development Program (IDP) in less than three (3) years. No

conclusion was reached, but the committee observed that the effect this might have on comity licensure should be considered.

Adjourn. Mr. Headley adjourned the meeting at 2:23 p.m.

MINUTES
BOARD OF ARCHITECTURAL AND ENGINEERING EXAMINERS
ENGINEER COMMITTEE MEETING
The University of Tennessee at Chattanooga
Chattanooga, Tennessee
October 14, 2015 – 2:30 P.M.

CALL TO ORDER

Hal Balthrop, P.E., Committee Chair, called the Engineer Committee meeting to order at 2:30 p.m. on October 14, 2015, at the University of Tennessee at Chattanooga (Maytag Room), in Chattanooga, Tennessee.

The following **Board members** were present:

Hal Balthrop, P.E.	Chair, Middle TN Member
Robert Campbell, P.E.	East TN Member
Philip Lim, PE	West TN Member (arrived at 3:20 p.m.)
Ricky Bursi, P.E.	West TN Associate Member
Stephen King, P.E.	East TN Associate Member
Laura Reinbold, P.E.	Middle TN Associate Member

A quorum was present.

The following **Board staff** was present:

John Cothron	Executive Director
Ellery Richardson	Legal Counsel
Wanda Phillips	Administrative Manager

Visitor present: Dr. Glenn Alford Church II

NEW BUSINESS

APPLICANT INTERVIEW

- **Glenn Alford Church II** (Comity) – Dr. Church presented his qualifications for registration to the committee. Due to the fact that his bachelor's degree is an engineering

technology degree, the application was disapproved. In order to qualify for registration, Dr. Church would need to provide evidence of a bachelor's degree in engineering.

Mr. Lim arrived at 3:20 p.m.

APPLICATIONS FOR DISCUSSION

- **Haider Fadhil Al-Mamoury** (Comity) – Mr. Al-Mamoury's degrees are from Iraq. He requested that the Board give the National Council of Examiners for Engineering and Surveying (NCEES) permission to use copies of his transcripts due to difficulties he has experienced obtaining original transcripts. The committee decided that he must try to obtain original transcripts from his university.
- **Jonathan David Gentry** (Comity) – The applicant has a little over eight (8) years of experience; however, only one (1) year and five (5) months was earned after award of his EAC/ABET engineering degree. He also has an engineering technology degree. The committee agreed that he must earn the required four years of post-graduate direct PE supervision to meet the Board's experience requirement.
- **Jean Bart Ruiter** (Comity) – Applicant's undergraduate degree is in engineering technology. He also has two graduate engineering degrees. The Board disapproved his application in August 2015; however, Mr. Ruiter requested that the Board accept his combined degrees toward registration. The committee concluded that Mr. Ruiter must earn an EAC/ABET accredited undergraduate engineering degree to meet the Board's educational requirement for PE registration.

POTENTIAL LAW, RULE, AND POLICY CHANGES

The committee **did not support** the following potential law and rule changes:

- Adding definitions of practice to the law.
- Amending Rule 0120-01-.10 regarding experience credit for concurrent time.

The committee **supported** the following proposed changes:

- Amending Rule 0120-02-.08(8)(b) to state, "Electronic signatures and dates of signature must be placed either across the face and beyond the circumference of the seal or adjacent to the seal."
- Adding a requirement to the Seals rule stating 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.

- Amending the Seals rule to state that registrants shall seal the original cover or index page(s) of all design calculations that are submitted for review.
- Amending the References rule to state that the Board prefers references from both the applicant's current employer/supervisor and a past employer/supervisor (if available).
- Amending the law to state that of letters of recommendation, reference forms, or transcripts submitted as part of or in supplement to an application are considered confidential. Ms. Richardson advised that this should be pursued as a law change and not a rule change. The committee agreed that the professional societies should be asked to pursue this change.

Mr. Campbell inquired about requiring an electronic seal and signature only on the cover sheet of plans due to the length of time required to load plans if each sheet is sealed. Mr. Balthrop responded that a NCEES task force is studying this and similar issues, and will issue a report with recommendations next year.

NCEES ANNUAL MEETING REPORT

The committee reviewed a written report on the 2015 NCEES Annual Meeting.

UPDATE ON 2016 NCEES SOUTHERN ZONE MEETING

Discussion of this topic was deferred to the December meeting.

COMPONENTS OF PROGRESSIVE ENGINEERING EXPERIENCE

Discussion of this topic was deferred to the December meeting.

NEW FE APPLICATION PROCESS

The committee agreed by consensus to adopt the fully automatic registration process for the Fundamentals of Engineering (FE) examination, beginning in January 2016. With this process, no education information is required; anyone who applies to NCEES is approved to sit for the FE exam. Individuals who pass the exam will then apply to the Board for engineer intern certification and must meet the minimum certification requirements in the law and rules.

DISCUSSION RE: ACCEPTANCE OF APPLICANTS WHO PASSED THE PE EXAM IN ANOTHER JURISDICTION AND APPLY FOR REGISTRATION BY EXAM RATHER THAN COMITY

The committee concluded that applicants who pass the Principles and Practice of Engineering (PE) exam in another jurisdiction, but who are not registered in that jurisdiction, may apply for registration by exam rather than comity without retaking the PE exam, even if the applicant sat

for the exam before completing the required experience. The required experience must be completed before registration may be granted. Rule 0120-01-.10(2) Education and Experience Requirements – Engineer will be amended to reflect this practice.

UNFINISHED BUSINESS

LICENSING AGREEMENTS WITH FOREIGN JURISDICTIONS

Discussion of this topic was deferred to the December meeting.

DECOUPLING OF EXPERIENCE AND EXAMINATION REQUIREMENTS FOR PE REGISTRATION

Discussion of this topic was deferred to the December meeting.

GENERAL EDUCATION (HUMANITIES/SOCIAL SCIENCES) DEFICIENCIES

The committee revised and adopted the following policy establishing criteria for fulfillment of the ABET humanities/social sciences (general education) requirement (in lieu of completing additional college coursework):

> Progressive engineering experience in the U.S., if applicant has practiced over five (5) years in the U.S. = **0.5 semester hour per year**
>
> Involvement in one (1) civic or professional organization in the U.S. = **0.5 semester hour per year**
>
> Passing tests for U.S. citizenship = **1 semester hour**
>
> Continuing education in ethics/humanities/social sciences (earned within 2 years of application date) = **1 semester hour per 15 PDH's**
>
> Advanced degree from a U.S. institution = **9 semester hours**
>
> CLEP credits will be accepted to fulfill up to 12 semester hours of humanities/social sciences deficiencies only if they are offered by a regionally accredited college or university and appear on the official college or university transcript.

ENERGY SERVICE COMPANIES AND ENGINEERING REGISTRATION LAWS

Discussion of this topic was deferred to the December meeting.

INCLUSION OF STATEMENT ON REFERENCE FORMS RELEASING REFERENCES FROM LIBEL AND SLANDER CLAIMS

Action on this item was deferred until the law is amended providing for the confidentiality of references.

Adjourn. The Chair adjourned the meeting at 6:00 p.m.

MINUTES
BOARD OF ARCHITECTURAL AND ENGINEERING EXAMINERS
LAW AND RULES/POLICIES COMMITTEE MEETING
The University of Tennessee at Chattanooga
Chattanooga, Tennessee
October 15, 2015 – 8:35 A.M.

CALL TO ORDER

In the absence of Committee Chair Rick Thompson, Robert Campbell, Jr. called the Law and Rules/Policies Committee meeting to order at 8:35 a.m. on October 15, 2015, at the University of Tennessee at Chattanooga (Maytag Room), in Chattanooga, Tennessee.

The following **Board members** were present:

Susan Ballard, R.I.D.
Robert Campbell, Jr., P.E.
Jerry Headley, R.A.
Bill Lockwood, R.L.A.
Laura Reinbold, P.E., Associate Member
Frank Wagster, R.A.

A quorum was present.

The following **Board staff** was present:

John Cothron	Executive Director
Ellery Richardson	Legal Counsel
Wanda Garner	Administrative Assistant
Wanda Phillips	Administrative Manager

NEW BUSINESS

POTENTIAL LAW, RULE, AND POLICY CHANGES

Action was **deferred** on the following potential law and rule changes:

- Amending the law regarding the experience duration requirement for architect exam applicants; the Architect Committee will continue to discuss this issue.
- Adding definitions of architecture, engineering, and landscape architecture to the law. Committee members agreed that if a definition is adopted for one profession, definitions must be adopted for all professions. Mr. Lockwood noted that the Council of Landscape Architectural Registration Boards (CLARB) is in the process of revising their *Model Law*, so any action would need to be delayed until after the *Model Law* is revised next year.
- Amending the Rules of Professional Conduct regarding service in areas of competence, which is connected to the definitions of practice referenced above.
- Adding title block requirements to the rules. The committee concluded that further discussion is needed and asked Ms. Richardson to draft proposed language for their consideration.
- Requiring a specific number of ethics continuing education hours. The committee decided that further discussion of this proposal is needed. Discussion of other proposed changes to the continuing education rules was deferred until the Continuing Education Committee meeting.
- Adopting a rule allowing professional corporations to issue shares of stock to non-licensed individuals. The committee asked Mr. Cothron to request a list of professional corporations offering services regulated by the Board from the Secretary of State's office and to ask the professional societies for an opinion on this issue.

The committee **did not support** the following potential rule change:

- Amending Rule 0120-01-.10 regarding experience credit for concurrent time.

The committee **supported** the following proposed changes:

- Amending the law to state that architect and landscape architect exam candidates will retain credit for any parts of the exam passed in accordance with the policies of the National Council of Architectural Registration Boards (NCARB) and CLARB. Ms. Richardson advised that this should be pursued as a law change and not a rule change. The committee agreed that the professional societies should be asked to pursue this change.
- Repealing Rule 0120-04-.09 (the "grandfathering" rule for interior designers), which is now obsolete. Ms. Ballard suggested amending T.C.A. § 62-2-904 to update the name of the Foundation for Interior Design Education Research (FIDER), which is now known as the Council for Interior Design Accreditation (CIDA).

- Amending Rule 0120-02-.08(8)(b) to state, “Electronic signatures and dates of signature must be placed either across the face and beyond the circumference of the seal or adjacent to the seal.”
- Adding a requirement to the Seals rule stating 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.
- Amending the Seals rule to state that registrants shall seal the original cover or index page(s) of all design calculations that are submitted for review.
- Amending the References rule to state that the Board prefers references from both the applicant’s current employer/supervisor and a past employer/supervisor (if available).
- Amending the law to state that of letters of recommendation, reference forms, or transcripts submitted as part of or in supplement to an application are considered confidential. Ms. Richardson advised that this should be pursued as a law change and not a rule change. The committee agreed that the professional societies should be asked to pursue this change.
- Adding a rule stating that registrants cannot lie or give false information to the Board.

Board policies will be reviewed at the next meeting.

Adjourn. Mr. Campbell adjourned the meeting at 9:50 a.m.

MINUTES
BOARD OF ARCHITECTURAL AND ENGINEERING EXAMINERS
GRANTS TO HIGHER EDUCATION COMMITTEE MEETING
The University of Tennessee at Chattanooga
Chattanooga, Tennessee
October 15, 2015 – 10:00 A.M.

CALL TO ORDER

Susan Ballard, Committee Chair, called the Grants to Higher Education Committee meeting to order at 10:00 a.m. on October 15, 2015, at the University of Tennessee at Chattanooga (Maytag Room), in Chattanooga, Tennessee.

The following **Board members** were present:

Susan Ballard, R.I.D.
Philip Lim, P.E.
Bill Lockwood, R.L.A.
Frank Wagster, R.A.

A quorum was present.

The following **Board staff** was present:

John Cothron	Executive Director
Ellery Richardson	Legal Counsel
Wanda Garner	Administrative Assistant
Wanda Phillips	Administrative Manager

NEW BUSINESS

DISTRIBUTION OF GRANT FUNDS

A motion was made by Mr. Lockwood and seconded to allow Middle Tennessee State University to submit a supplemental request for the full $3,000 grant and to recommend approval of the proposed distribution of grant funds for fiscal year 2016, as prepared by Board staff. The motion passed unanimously.

REVIEW OF GRANT GUIDELINES

Mr. Cothron noted that one university had asked about the possibility of using grant funds for research awards for undergraduate students. Mr. Lim advised against it since it could hurt schools that do not engage in a lot of research, but Ms. Ballard supported the proposal and suggested also offering grants for visiting professors. The committee agreed that this matter should be discussed with the deans and program directors next October. Deans and program directors will also be asked to supply information on how grant funds have been utilized at this meeting.

A motion was made by Mr. Lockwood and seconded to recommend changing the grant proposal deadline in the grant guidelines to September 15th and to delete the subrecipient monitoring plan requirement. The motion passed unanimously.

Adjourn. The Chair adjourned the meeting at 10:30 a.m.

MINUTES
BOARD OF ARCHITECTURAL AND ENGINEERING EXAMINERS
FINANCE COMMITTEE MEETING
The University of Tennessee at Chattanooga
Chattanooga, Tennessee
October 15, 2015 – 11:55 A.M.

CALL TO ORDER

Frank Wagster, Committee Chair, called the Finance Committee meeting to order at 11:55 a.m. on October 15, 2015, at the University of Tennessee at Chattanooga (Maytag Room), in Chattanooga, Tennessee.

The following **Board members** were present:

Frank Wagster, R.A.
Robert Campbell, Jr., P.E.

A quorum was present.

The following **Board staff** was present:

John Cothron	Executive Director
Ellery Richardson	Legal Counsel
Wanda Garner	Administrative Assistant
Wanda Phillips	Administrative Manager

NEW BUSINESS

REVIEW OF FINANCIAL DATA

Committee members reviewed the financial reports prepared by Board staff.

Mr. Campbell suggested lowering the $140 registration fee by $5-$10 to reduce the amount of surplus revenue rolling into reserves each year. The committee asked Mr. Cothron to prepare a report calculating the impact a registration fee reduction would have on the budget.

Adjourn. The Chair adjourned the meeting at 12:30 p.m.

MINUTES
BOARD OF ARCHITECTURAL AND ENGINEERING EXAMINERS
PUBLICATIONS COMMITTEE MEETING
The University of Tennessee at Chattanooga
Chattanooga, Tennessee
October 15, 2015 – 10:30 A.M.

CALL TO ORDER

Stephen King, Committee Chair, called the Publications Committee meeting to order at 10:30 a.m. on October 15, 2015, at the University of Tennessee at Chattanooga (Maytag Room), in Chattanooga, Tennessee.

The following **Board members** were present:

Susan Ballard, R.I.D.
Ricky Bursi, P.E., Associate Member
Stephen King, P.E., Associate Member
Bill Lockwood, R.L.A.

A quorum was present.

The following **Board staff** was present:

John Cothron	Executive Director
Ellery Richardson	Legal Counsel
Wanda Garner	Administrative Assistant
Wanda Phillips	Administrative Manager

NEW BUSINESS

NEWSLETTER ARTICLES

Ms. Ballard volunteered to write a newsletter article on social media ethics.

UNFINISHED BUSINESS

REFERENCE MANUAL REVISIONS

- Mr. Cothron was asked to add a sentence to the occupancy definitions section on page 2 clarifying that the 1985 Standard Building Code is cited only for occupancy definitions and for no other purpose.

- Ms. Richardson recommended that the Expert Testimony policy be repealed and added to the Most Commonly Asked Questions section. She will draft appropriate language.

- The committee agreed that the Commissioning of Engineered Systems, Sealing Manufactured Product Details, Review Letters, and Shop Drawings, and Spill Prevention, Control and Countermeasure (SPCC) Plans policies should be added to the *Reference Manual*.

- It was noted that some of the code references in Appendix E, the Cover Sheet for Plans Submissions, are still in need of revision (this had been assigned to Rick Thompson).

- Committee members discussed the frequency of *Reference Manual* updates and agreed that it should be updated more frequently, perhaps on a continual basis as a web-based document instead of a printed document.

Revisions to the *Reference Manual* will be finalized in December.

Adjourn. The Chair adjourned the meeting at 11:05 a.m.

MINUTES
BOARD OF ARCHITECTURAL AND ENGINEERING EXAMINERS
LICENSURE OUTREACH COMMITTEE MEETING
The University of Tennessee at Chattanooga
Chattanooga, Tennessee
October 15, 2015 – 11:08 A.M.

CALL TO ORDER

Bill Lockwood, Committee Chair, called the Licensure Outreach Committee meeting to order at 11:08 a.m. on October 15, 2015, at the University of Tennessee at Chattanooga (Maytag Room), in Chattanooga, Tennessee.

The following **Board members** were present:

Susan Ballard, R.I.D.
Stephen King, P.E., Associate Member
Bill Lockwood, R.L.A.

A quorum was present.

The following **Board staff** was present:

John Cothron	Executive Director
Ellery Richardson	Legal Counsel
Wanda Garner	Administrative Assistant
Wanda Phillips	Administrative Manager

NEW BUSINESS

OUTREACH ACTIVITIES

Mr. Cothron outlined several outreach ideas, including a possible program for new registrants and outreach to building officials.

MEETINGS WITH DEANS/PROGRAM DIRECTORS

Ms. Ballard volunteered to prepare a list of items for deans and program directors to address at the next meeting with educators in October 2016. She also asked that the travel budget for in-state speaking engagements be raised to allow for more outreach.

Adjourn. The Chair adjourned the meeting at 11:17 a.m.

MINUTES
BOARD OF ARCHITECTURAL AND ENGINEERING EXAMINERS
CONTINUING EDUCATION COMMITTEE MEETING
The University of Tennessee at Chattanooga
Chattanooga, Tennessee
October 15, 2015 – 11:30 A.M.

CALL TO ORDER

Frank Wagster, Committee Chair, called the Continuing Education Committee meeting to order at 11:30 a.m. on October 15, 2015, at the University of Tennessee at Chattanooga (Maytag Room), in Chattanooga, Tennessee.

The following **Board members** were present:

Susan Ballard, R.I.D.
Hal Balthrop, P.E.
Ricky Bursi, P.E., Associate Member
Bill Lockwood, R.L.A.
Frank Wagster, R.A.

A quorum was present.

The following **Board staff** was present:

John Cothron	Executive Director
Ellery Richardson	Legal Counsel
Wanda Garner	Administrative Assistant
Wanda Phillips	Administrative Manager

NEW BUSINESS

POTENTIAL RULE AND POLICY CHANGES

Committee members supported amending the continuing education rules to allow credit for patents (up to 10 PDH's per biennium) and authoring accepted licensing examination items (up to 5 PDH's per biennium). They also supported amending the rules to allow up to 10 PDHs per biennium for each published peer-reviewed paper, article or book in the licensee's area of

professional practice, and up to 5 PDHs per biennium for other published papers, articles or books.

The committee did not support amending the rules to require a specific number of ethics hours.

Committee members supported reducing the time period to complete additional continuing education hours after disallowance from 180 days to 90 days (rather than 60 days as originally proposed).

Ms. Richardson will draft proposed rules incorporating these changes for the Board's consideration.

Adjourn. The Chair adjourned the meeting at 11:52 a.m.

TN Board of Architectural and Engineering Examiners

Action Items (October 2015)

John Cothron

- Inquire if Board members may receive the $50 per diem on travel days; also inquire if the per diem can be raised.
- Ask the professional societies for an opinion on T.C.A. § 48-101-610(2) [the Tennessee Professional Corporation Act], which allows professional corporations to issue shares of stock to non-licensed individuals only "if the licensing authority which licenses the professionals forming such corporations specifically authorizes the issuance of such shares." Also ask the Secretary of State's office for a list of professional corporations offering services regulated by the Board.
- Prepare a report calculating the impact a registration fee reduction would have on the budget.
- Provide a written response to Christopher Davis regarding what services he can offer in Tennessee without registration.

Ellery Richardson

- Determine if it is a conflict of interest for Board members to serve on university advisory boards and committees of professional societies.
- Determine if outside reviewers for enforcement cases should sign a non-disclosure agreement.
- Draft proposed rule changes for discussion.
- Draft a FAQ regarding expert testimony for the *Reference Manual*.

Susan Ballard

- Prepare a list of items for deans and program directors to address at the next meeting with educators in October 2016.
- Write a newsletter article on social media ethics.

TN Department of Commerce & Insurance

REPORT ON 2015 CIDQ ANNUAL COUNCIL OF DELEGATES MEETING
ATLANTA, GA

The following issues were discussed at the CIDQ Annual Council of Delegates Meeting on November 13-14, 2015:

- Architect Steve Mouzon delivered presentations on sustainability and the use of social media.

- CIDQ Updates:
  - It was announced that Dr. Carol Williams-Nickelson has resigned as Executive Director of CIDQ; the Board of Directors is in the process of hiring a new director.
  - A task force will be created this year to revise the Articles of Incorporation and Bylaws to eliminate inconsistencies and simplify language.
  - Revenue and the number of certificate holders continue to grow. Reserves are growing, as well (they are almost 50% of one year's budget; the goal is 75%).
  - The Alternate Education Review Program (AERP) is available to evaluate non-accredited degrees in interior design.
  - A new pathway to NCIDQ certification has been developed for educators in which teaching counts for up to 50% of the required experience.
  - CIDQ is conducting pilot testing of the NCIDQ exam in London as part of their efforts to globalize the exam.
  - Almost 200 ambassadors and 135 champions have been trained to engage in outreach efforts.
  - The Practicum exam will be computerized in 2017. Like the next version of the ARE (ARE 5.0), the computerized Practicum exam will include new item types (e.g., "drag and drop" questions and case studies).
  - CIDQ continues to study the possibility of reduced member board dues for jurisdictions with small populations.
  - The Interior Design Experience Program (IDEP) is currently being revamped.

- Professional Organization Updates:
  - The Council for Interior Design Accreditation (CIDA) reported that there are currently 183 accredited interior design programs (168 bachelors, 10 masters, 5 bachelors and masters). Of these, 176 are in the U.S, 1 in Qatar, and 6 in Canada. Katherine Setser will become the new CIDQ liaison to CIDA next year.
  - Jim Brewer, Vice President of Government and Public Affairs for ASID, reported that
    - several states are working to obtain practice acts/permitting privileges for interior designers;
    - a coalition is working to revise the federal tax code to allow more foreign real estate investment in the U.S.; and
    - a recent White House report on occupational licensing questions the need for licensing in several professions and trades.

- Member Board Updates:
  - Florida's state building code was recently revised to give interior designers permitting privileges.
  - Louisiana has a practice act for interior designers, but no permitting privileges. The Louisiana State Fire Marshal's office and architects in the state oppose granting permitting privileges to interior designers.
  - The Oklahoma Board used $850,000 this year to start a scholarship foundation for architect, landscape architect, and interior design students; they have also implemented continuing education requirements.
  - Texas reported that the state privilege tax has been repealed. Also, due to a change in the law, "grandfathered" interior designers are being required to pass the NCIDQ exam to maintain their registration.
  - Several jurisdictions expressed concerns about deregulation of the interior design profession.

- Roundtable Discussions: Several ideas and topics were discussed during roundtable discussions, including:
  - Collaboration and unity in the profession
  - Promotion of the profession (including the need for a common title)
  - Title acts vs. practice acts
  - Alternative Application Review Program (AARP)—a new program providing an alternate path to NCIDQ certification for broadly experienced interior designers who do not qualify under the standard routes.
  - Outreach to legislators

- The 2016 Annual Meeting is scheduled for November 11-12 in Fort Lauderdale, Florida.

REFERENCE MANUAL FOR BUILDING OFFICIALS AND DESIGN PROFESSIONALS

Revised December 2015

Table of Contents

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/section/architects-engineers
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 2009.

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

- The Requirements for Building Design (added occupancy definitions)
- A Check List for the Examination of Building Construction Documents (revised the section regarding public works projects)
- Most Commonly Asked Questions (added and revised several questions)
- Appendix E—Cover Sheet for Plans Submissions (updated several code references)
- Appendix F—Sprinkler Design (revised the Review of Sprinkler Shop Drawings policy and updated code references in the Standard of Care)
- Appendix G—Engineering Exemption Policy for Fire Sprinkler System Design (updated some definitions)
- Appendix H—Design and Practice Policies
    - Added the Commissioning of Engineered Systems policy
    - Deleted the Expert Testimony policy, which has been repealed and moved to the Most Commonly Asked Questions section
    - Deleted the Revisions to Plans Prepared by Prior Registrant policy, which has been moved to the rules and repealed; a question on this subject has been added to the Most Commonly Asked Questions section
    - Added the Sealing Manufactured Product Details, Review Letters, and Shop Drawings policy
    - Added the Spill Prevention, Control and Countermeasure (SPCC) Plans 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.

Following is a summary of occupancy definitions from the 1985 edition of the Standard Building Code, which is cited for occupancy definitions in T.C.A. § 62-2-102. **Please note that the 1985 Standard Building Code is cited only for occupancy definitions and for no other purpose.**

- Assembly Occupancies (A) - buildings or structures, or any portion thereof, for the gathering of persons for purposes such as civic, social, or religious functions or for recreation, food or drink consumption, or awaiting transportation, having a capacity of 50 or more persons. A registered design professional is required to prepare plans and specifications for this type of occupancy regardless of the size of the facility. Examples include: amusement park buildings; auditoriums; churches, synagogues, mosques; dance halls; motion picture theaters; museums; passenger depots; public assembly halls; and restaurants that accommodate 100 or more people, or that have a stage, provide dancing or entertainment features.

- Business Occupancies (B) - use of a building or structure, or any portion thereof, for office, professional, or service transactions including normal accessory storage and the keeping of records or accounts. A registered design professional is required to prepare plans and specifications if the building or structure is over two stories in height or is five thousand square feet or more in total gross area. Examples include: office buildings; service stations; bowling alleys; greenhouses; banks; libraries (other than school); restaurants and dry cleaning establishments using nonflammable solvents.

- Educational Occupancies (E) - use of a building or structure, or any portion thereof, for the gathering together of persons for the purpose of instruction. A registered design professional is required to prepare plans and specifications for this type of occupancy regardless of the size of the facility. Examples include: public and private schools; colleges; universities, academies and day care facilities.

- Factory-Industrial Occupancies (F) - use of a building or structure, or any portion thereof, for assembling, disassembling, repairing, fabricating, finishing, manufacturing, packaging or processing operations, but does not include buildings used principally for any purpose involving highly combustible, flammable, or explosive products or materials. A registered design professional is required to prepare plans and specifications if the building or structure is over two stories in height or is five thousand square feet or more in total gross area. Examples include: manufacturing plants, factories, assembly plants, processing plants and mills.

- Hazardous Occupancies (H) - principal use of a building or structure, or any portion thereof, that involves highly combustible materials or flammable materials, or explosive materials that have inherent characteristics that constitute a high fire hazard. A registered design professional is required to prepare plans and specifications if the building or structure is over two stories in height or is five thousand square feet or more in total gross area. Examples include: dry cleaning

establishments using flammable solvents, explosive manufacturing, grain elevators, paint or solvent manufacturing, pyroxylin plastic manufacturing, sodium nitrate or ammonium nitrate, storage of combustible film and tank farms used to store flammable liquids or gases.

- Institutional Occupancy (I) - A registered design professional is required to prepare plans and specifications for this type of occupancy regardless of the size of the facility:
    1. unrestrained occupancy - use of a building or structure, or any portion thereof, for the purpose of providing medical care and sleeping facilities for four or more persons who are mostly incapable of self-preservation because of physical or mental disability; examples include: hospitals, nursing homes, mental institutions (restrained and unrestrained) and nursery facilities providing full time 24-hour care for persons under six years of age.
    2. restrained occupancy - use of a building or structure, or any portion thereof, for the purpose of providing sleeping facilities for four or more persons who are confined or housed under some degree of restraint or security; examples include: jails, detention centers, correctional institutions, reformatories, pre-release centers and other residential-restrained care facilities.

- Mercantile Occupancies (M) - use of a building or structure, or any portion thereof, for the display and sale of merchandise. A registered design professional is required to prepare plans and specifications if the building or structure is over two stories in height or is five thousand square feet or more in total gross area. Examples include: shopping malls, stores, shops and markets.

- Residential Occupancy (R) - use of a building or structure, or any portion thereof, for sleeping accommodations not classified as institutional occupancies. A registered design professional is required to prepare plans and specifications if the building or structure is over two stories in height or is five thousand square feet or more in total gross area. Examples include: multiple dwellings (more than two families), hotels and motels, dormitories, lodging houses and convents and monasteries.

- Storage Occupancy (S) - principal use of a building or structure, or any portion thereof, for storage that is not classified as hazardous, or for the purpose of sheltering animals. A registered design professional is required to prepare plans and specifications if the building or structure is over two stories in height or is five thousand square feet or more in total gross area. Examples include: aircraft hangars, garages, warehouses, storage buildings, freight depots and automobile parking structures.

Full definitions may be obtained from the Board office.

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 0120-01, 0120-02, 0120-04, 0120-05, and 0120-06. The law and rules may be viewed on the Board's website located at www.tn.gov/regboards/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 Council for Interior Design Qualification (CIDQ)—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~~ $50,000 (contemplated expenditure for complete project, except state park maintenance projects described below), or
- alter the structural, mechanical, or electrical system of the project.

There is an exemption for public works projects located in a state park if the project meets the following conditions:

1) The contemplated expenditure for the complete project does not exceed $100,000 in value and the work is defined solely as maintenance under the policy and procedures of the State Building Commission, or

2) If the project is located in a state park and existing plans are used which have been designed and sealed by a registered architect, engineer, or landscape architect and a registered architect, engineer, or landscape architect reviews such plans for compliance with all applicable codes and standards and appropriateness for the site conditions of the project, makes changes if required, and seals the plans in accordance with state law.

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 0120-02-.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 in accordance with the provisions of Rule 0120-02-.08(8):

(a) Subject to the requirements of this rule, rubber-stamp, embossed, transparent self-adhesive or electronically generated seals may be used. Such stamps or seals shall not include the registrant's signature or date of signature.

(b) Subject to the requirements of this rule, the registrant may affix an electronically generated signature and date of signature to documents. Electronic signatures and dates of signature are not required to be placed across the face and beyond the circumference of the seal, but must be placed adjacent to the seal. Documents that are signed using a digital signature must have an electronic authentication process attached to or logically associated with the electronic document. The digital signature must be:

i. Unique to the individual using it;
ii. Capable of verification;
iii. Under the sole control of the individual using it; and
iv. Linked to a document in such a manner that the digital signature is invalidated if any data in the document is changed.

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~~ $50,000 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?

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~~ $50,000 (contemplated expenditure for complete project, except state park maintenance projects described below), or
- alter the structural, mechanical, or electrical system of the project.

There is an exemption for public works projects located in a state park if the project meets the following conditions:

1) The contemplated expenditure for the complete project does not exceed $100,000 in value and the work is defined solely as maintenance under the policy and procedures of the State Building Commission, or

2) If the project is located in a state park and existing plans are used which have been designed and sealed by a registered architect, engineer, or landscape architect and a registered architect, engineer, or landscape architect reviews such plans for compliance with all applicable codes and standards and appropriateness for the site conditions of the project, makes changes if required, and seals the plans in accordance with state law.

~~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~~ 12-4-107.)

32. If a registrant's license has expired between the time construction documents were prepared and the time when they are submitted to an authority for review, do the documents need to be re-sealed by a registrant with a current license?

No. As long as the license was current at the time the documents were prepared, the documents do not need to be re-sealed prior to review. However, any changes (updates or modifications) to the documents that are made following the review must be prepared and sealed by a registrant with a current license.

33. Under what circumstances may a registrant revise plans prepared by another registrant?

In circumstances where a registrant can no longer provide services on a project (such as death, retirement, disability, contract termination, etc.), a successor 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 successor registrant may not seal the set of drawings prepared by the original registrant; rather, the successor registrant must take all steps necessary to ensure that the drawings were prepared under his or her responsible charge before sealing them. If the plans are complete and have been submitted to a reviewing official, the successor registrant may prepare and seal addenda sheets or document and seal changes to the original sheets if revisions are necessary. With the exception of this provision, any changes made to the final plans, specifications, drawings, reports or other documents after final revision and sealing by the registrant are prohibited by any person other than the registrant, including but not limited to owners/clients, contractors, subcontractors, other design professionals, or any of their agents, employees or assigns. (Rule 0120-02-.08)

34. Is registration required to provide 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.

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. Roof Maintenance or Repair. 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.]~~

(a) Neither the state, nor 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) (1) Nothing in this section shall be held to apply to such public work if:

(A) The contemplated expenditure for the complete project does not exceed fifty thousand dollars ($50,000), and the work does not alter the structural, mechanical or electrical system of the project; or

(B) The contemplated expenditure for the complete project does not exceed one hundred thousand dollars ($100,000), the project is located in a state park, and the work is solely maintenance, as defined in the policy and procedures of the state building commission.

(2) For a public work located in a state park, existing plans may be used as a basis of design if the plans have been designed and sealed by a registered architect, engineer, or landscape architect and a registered architect, engineer, or landscape architect reviews such plans for compliance with all applicable codes and standards and appropriateness for the site conditions of the project, makes changes if required, and seals the plans in accordance with the requirements of this chapter.

(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; 2012, ch. 927, § 1; 2015, ch. 403, § 1.]

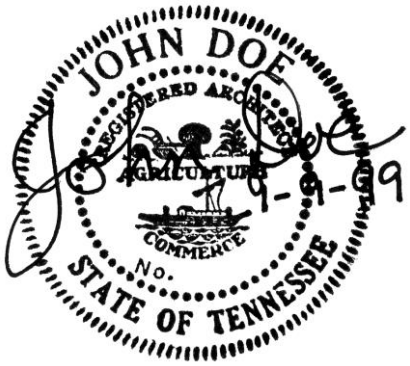
HISTORICAL FOOTNOTE: This policy was adopted by the Board as a result of negotiations with construction-related industry representatives to get T.C.A., Section 62-2-102(b), enacted into law.

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
Revised and adopted 10-23-09
Revised and adopted _____

APPENDIX D

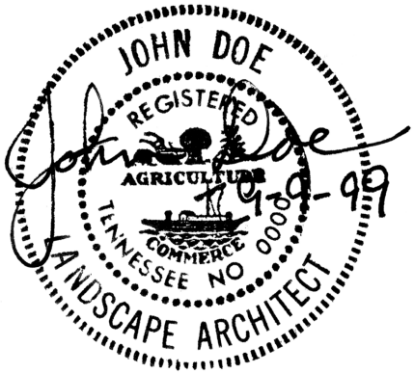
Example of a Properly Signed and Dated Seal

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 _____~~

_____ ADA Standards _____ Other _____

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 minimium)
Tennessee Department of Environment and Conservation Rules and Regulations ~~1200-5-1-.17, paragraph 18~~ Chapter 0400-45-01 "Public Water Systems."

b. Party responsible for taking test (name and address)
_____
_____

c. Date test taken: _____ Time test taken: _____am/pm

d. 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~~ IBC Chapter 5.
- 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~~ IBC Chapter 16.
- 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

POLICY FOR REVIEW OF SPRINKLER SHOP DRAWINGS

A fire protection sprinkler system contractor registered pursuant to Tennessee Code Annotated, Title 62, Chapter 32, Part 1, through its responsible managing employee, shall submit shop drawings of proposed fire protection sprinkler system installations. After receipt of the shop drawings, the authority having jurisdiction (AHJ) will review the drawings and will approve or disapprove the shop drawings.

This policy is not intended to circumvent the requirement for plans prepared and sealed by registered architects and/or engineers where appropriate; rather, the policy is intended to allow the sprinkler system contractor to submit shop drawings to provide for the installation of the sprinkler systems. These drawings shall be coordinated with the architect or engineer of record. The architect or engineer of record shall always provide the design intent of the system and shall 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 engineering decisions. The registered architect or engineer shall also provide design from the point of service—that point at which the system is dedicated solely to fire protection—to the building.

This policy is also not intended to result in the fire protection sprinkler system contractor being assigned the architect's or engineer's design responsibilities concerning sprinkler drawings. The design architect or engineer shall not require the sprinkler contractor to provide shop drawings sealed by a registered engineer. The designer shall not assign the engineering responsibilities to the sprinkler contractor. This is not intended to prevent a fire protection sprinkler system contractor from providing design-build services.

Adopted 4-10-97
Revised and adopted 6-4-15

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 where ~~any required~~ seismic bracing is required. 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, Figure in Annex A, "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
Revised and adopted _____

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:

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.

AHJ (AUTHORITY HAVING JURISDICTION). ~~The~~ An organization, office, or individual responsible for enforcing the requirements of a code or standard, or 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.

BUILDING. Any structure used or intended for supporting or sheltering any use or occupancy. Source: Life Safety Code (NFPA 101)~~, 2003 edition~~.

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.

COMMODITY. Combinations of products, packing material, and container upon which the commodity classification is based. Source: NFPA 13.

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.

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.

HAZARD CLASSIFICATIONS:

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.

Ordinary Hazard Occupancies –

- 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, where stockpiles of contents with moderate rates of heat release do not exceed 12 ft (3.7 m), ~~and fires with moderate to high rates of heat release are expected~~ and stockpiles of contents with high rates of heat release do not exceed 8 ft (2.4 m).

Extra Hazard Occupancies --

- 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. 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.
OCCUPANCY CLASSIFICATION. The purpose for which a building or portion thereof is used or intended to 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).

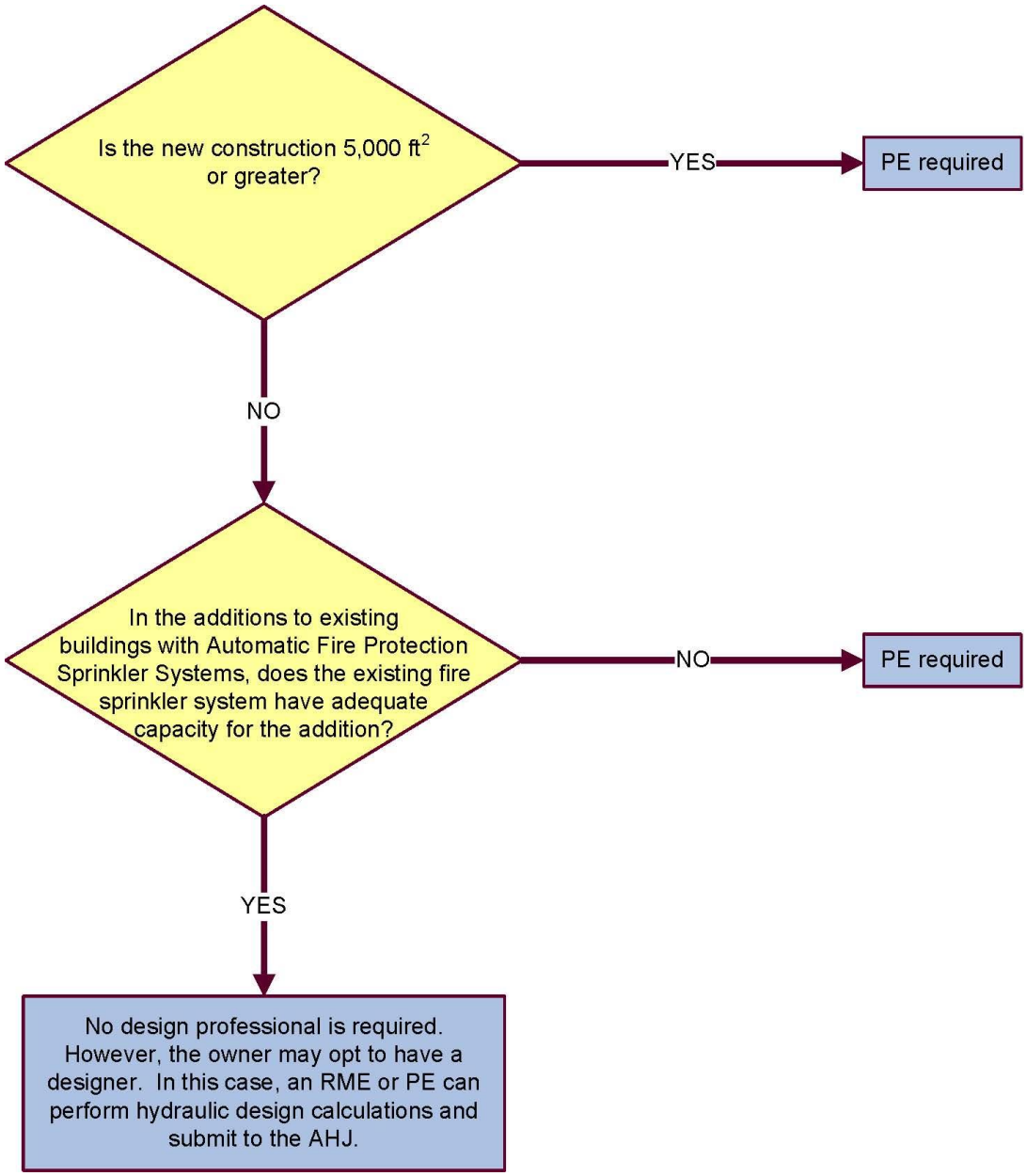
Adopted 8-25-05

Revised and adopted _____

Engineering Exemption Policy for Fire Sprinkler Design Decision Trees

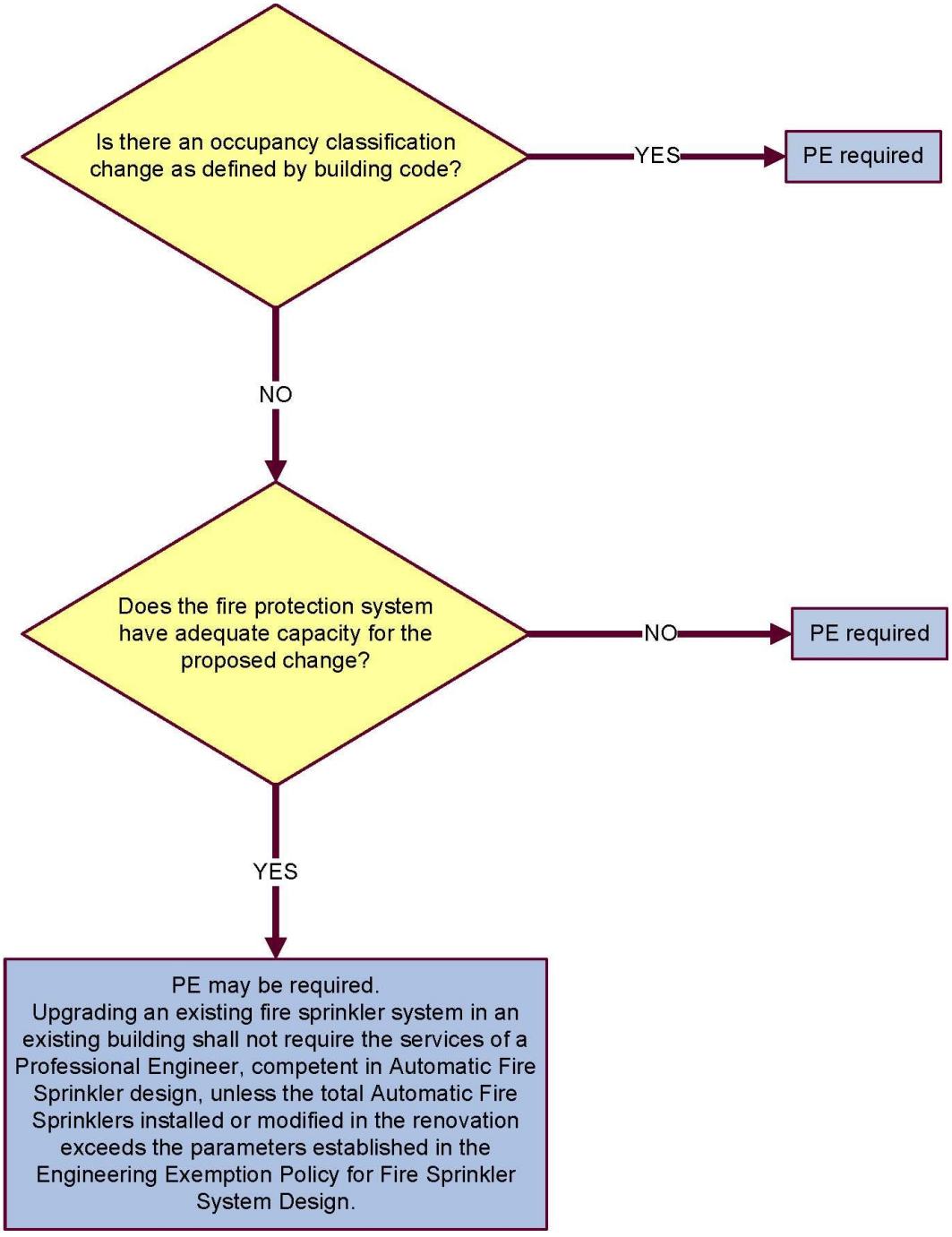
Engineering Exemption Policy for Fire Sprinkler Design Decision Tree

Fire Sprinkler System – New Construction Including Additions



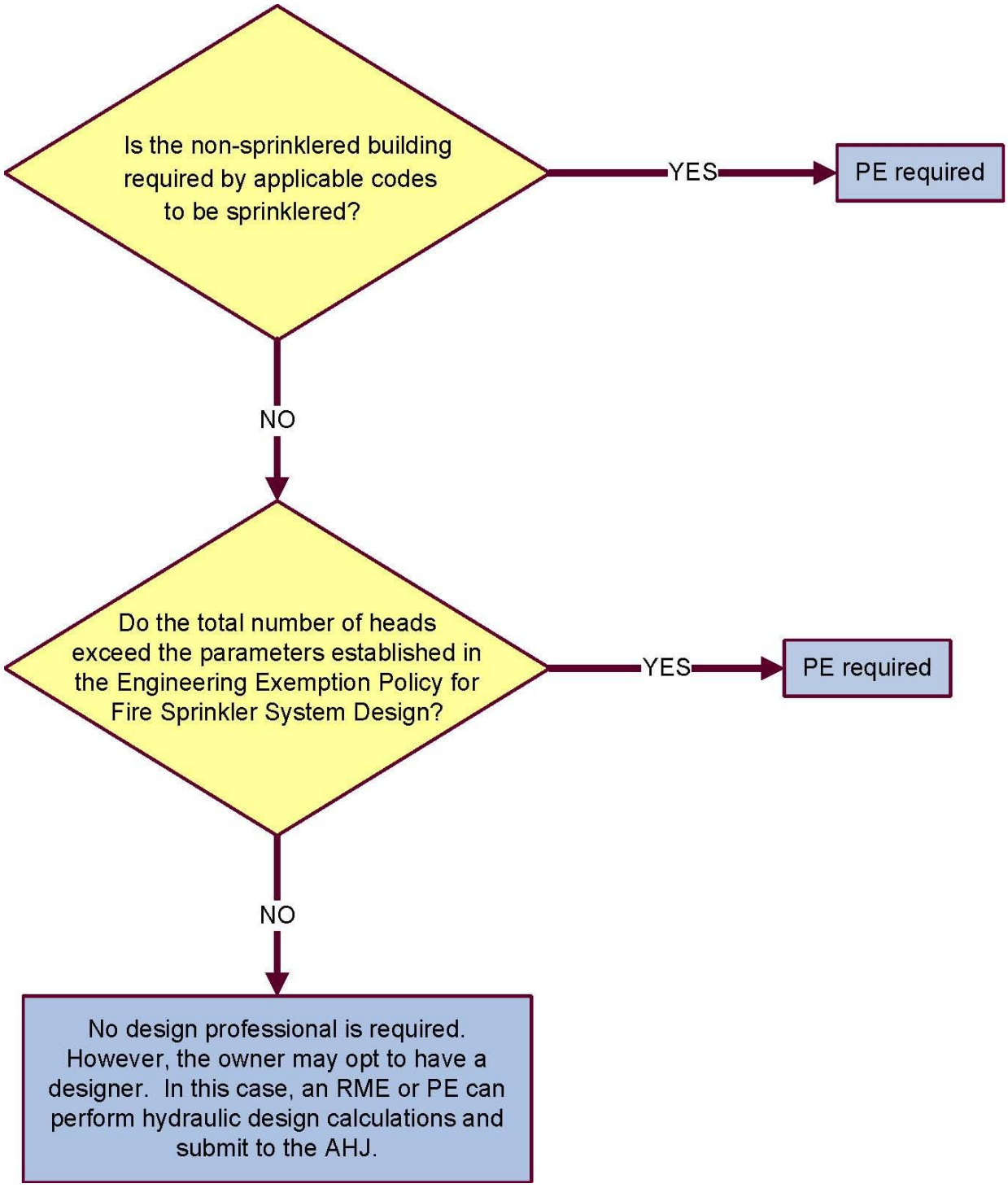
This Decision Tree is the companion document to the Engineering Exemption Policy for Fire Sprinkler System Design.

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



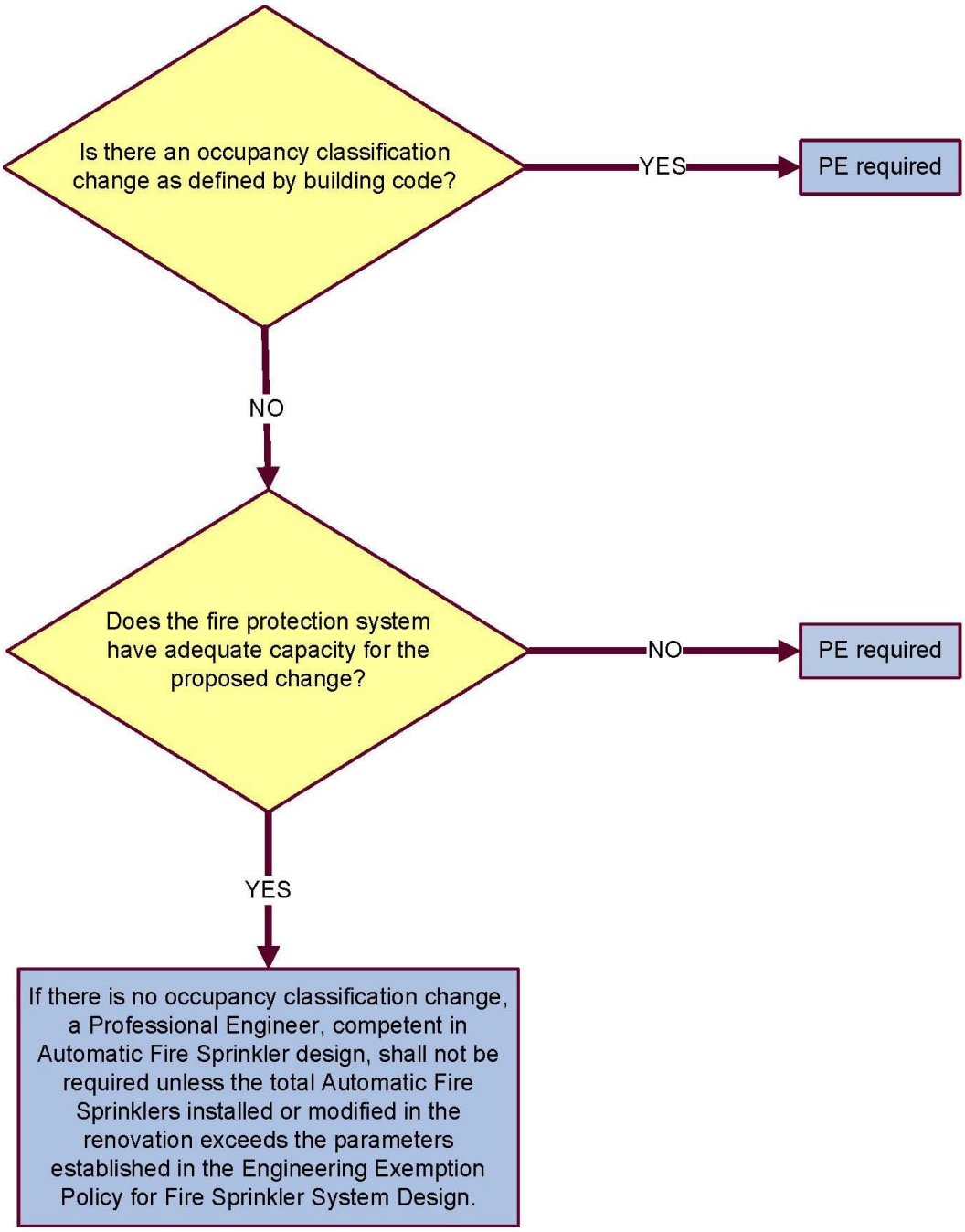
This Decision Tree is the companion document to the Engineering Exemption Policy for Fire Sprinkler System Design.

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. COMMISSIONING OF ENGINEERED SYSTEMS

Commissioning is a field of services provided to validate design concepts and systems operations. A variety of levels of professional expertise, using both licensed and unlicensed professionals, are used to deliver commissioning services.

It is the position of the Board of Architectural and Engineering Examiners that commissioning of those systems that are engineered systems falls under the practice of architecture or engineering and must be performed under the responsible charge of a registered architect or professional engineer with the appropriate expertise.

Adopted 4-10-14

IV. 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

V. 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

VI. 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

VII. 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

VIII. 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

~~**EXPERT TESTIMONY**~~ **Recommend repeal of policy; moved to FAQs**

~~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

~~**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~~

XIV. SEALING MANUFACTURED PRODUCT DETAILS, REVIEW LETTERS, AND SHOP DRAWINGS

The following provides the Board's policies regarding when a registrant may or may not seal a product detail, shop drawing, or review letter.

The design professional . . .

- Shall not seal a detail of a manufactured product designed by others.
- May seal a detail of a manufactured product if the design professional performs calculations to confirm design and re-draws detail.
- May incorporate a manufacturer's detail from a trusted source into a larger drawing as allowed by Rule 0120-02-.08(6)(a)(5) Seals.
- May seal a review letter of a manufactured product if the letter can be considered a report and includes language to define the responsibilities and limitations of the reviewing engineer.
- Shall not seal a shop drawing prepared by others; may only add a shop drawing review stamp to address conformance with design intent.
- May not be required by the authority having jurisdiction to seal the design of a manufactured product if the design is exempted by applicable law.

Adopted 10-10-14

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

XVI. SPILL PREVENTION, CONTROL AND COUNTERMEASURE (SPCC) PLANS

It is the policy of this Board that if the seal of a professional engineer is required on SPCC plans for a facility in Tennessee, then a Tennessee-registered professional engineer must seal the plans. The seal of an engineer registered in another jurisdiction would not be acceptable.

This decision is in accordance with Tennessee Code Annotated § 62-2-101, which states that only properly qualified and registered persons may practice engineering in this state. The stated purpose of this requirement is "to safeguard life, health and property, and to promote public welfare."

This policy would also apply to Storm Water Pollution Prevention Plans (SWPPP) for projects in Tennessee. If the seal of a professional engineer is required on these plans, then a Tennessee-registered professional engineer must seal the plans.

Adopted 10-12-12

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Redline Draft – Potential 2016 Rules
Tennessee Board of Architectural and Engineering Examiners

Chapter 0120-01
Registration Requirements and Procedures

Amendments

The Table of Contents is amended by changing Repealed rule 0120-01-.03 to new rule Individuals Registered in Other Jurisdictions, so that the amended Table of Contents shall read as follows: This incorporates the policy Use of Title if Registered in Other Jurisdictions.

Rule 0120-01-.03 Repealed is substituted with new rule Individuals Registered in Other Jurisdictions so that it reads as follows: This incorporates the policy Use of Title if Registered in Other Jurisdictions.

(1) Unless properly registered, individuals shall not make use of the title "engineer," "architect," "landscape architect," or any appellation thereof that gives the impression that the individual is an architect, engineer, or landscape architect in Tennessee. Individuals not registered in Tennessee but registered in other jurisdictions may use these titles so long as the jurisdiction in which they are registered is clearly specified so as not to mislead the public regarding their credentials. This clarification is not required on communications from an out-of-state office, provided that the individual is registered in that jurisdiction.

(2) Individuals registered in other jurisdictions cannot offer or perform architectural, engineering, or landscape architectural services to the public in Tennessee unless they are either acting as consulting associates in accordance with T. C. A. § 62-2-103(2) or working under the responsible charge of a Tennessee registrant.

Authority T.C.A. §§ 62-2-101 and 62-2-103.

Rule 0120-01-.04 Applications – General is amended by adding new parts (4) and (5) so that it reads as follows: This incorporates the policy Registration Expired in Another State.

(1) Applications for registration and certification are available on the Board website and upon request from the office of the Board.

(2) Any application submitted which lacks required information or reflects a failure to meet any requirement will be held in "pending" status until satisfactorily completed within a reasonable period of time, not to exceed five (5) years from the date of application.

(3) Any application submitted may be withdrawn; provided, however, that the application fee will not be refunded.

(4) An individual who was previously registered in another jurisdiction but whose registration has expired may apply in Tennessee as a new exam applicant. The Board will decide on a case-by-case basis if it will accept exam(s) passed in another jurisdiction.

(5) Individuals who are currently registered in another state may apply by comity in accordance with T.C.A. § 62-2-304.

Rule 0120-01-.09 References is amended by changing the third part of the rule so that it shall read:

(3) A maximum of three (3) references shall be obtained from ~~the~~ an employer listed by the applicant. ~~References are required~~ The Board prefers references from both the applicant's current employer/supervisor and a past employer/supervisor, ~~(~~if available ~~applicable)~~.

Rule 0120-01-.10 Education and Experience Requirements – Engineer is amended by adding a sentence at the ending of the second part of the rule so that it shall read:

(2) In general, "progressive experience in the practice of engineering" consists of engineering experience which is supervised by a registered professional engineer. The Board may grant toward experience requirements for registration as an engineer one (1) year of credit for graduation with a Master's degree (or higher) in engineering from an approved curriculum or up to one (1) year of qualified experience obtained in an established cooperative education program, which is carried out within the framework of an approved engineering curriculum, and which has been approved by the Board. At least one (1) year of engineering experience must be completed in the United States. Unless otherwise noted above, an applicant's engineering experience must be obtained after graduation with the qualifying degree and completed by the date of the examination. For applicants who have already passed the examination in another jurisdiction, the experience need not be completed by the date of the examination.

Rule 0120-01-.11 Education and Experience Requirements – Architect is amended by changing the word "will" to "may" in paragraph one (1), so that as amended it reads as follows:

(1) For purposes of evaluating the education and experience of applicants for examination and registration as an architect, the Board ~~will~~ may utilize the "Table of Equivalents" contained in Appendix "A" to Circular of Information No. 1, published in July 1983 by the National Council of Architectural Registration Boards (NCARB), except to the extent that such document conflicts with any applicable statute.

Rule 0120-01-.25 Renewal of Registration is amended by amending part (5) and adding a new part (6) so that it shall read as follows:

(1) All certificates of registration issued to engineers, architects and landscape architects are subject to biennial renewal (every two (2) years) in accordance with the provisions of T.C.A. § 56-1-302(b).

(2) An architect, engineer or landscape architect may renew a current, valid registration by submitting a renewal form approved by the board, the required renewal fee, and evidence of having completed the number of professional development hours (PDH's) required by rule 0120-05-.04.

(3) Fees for biennial renewal of certificates of registration shall be as follows:

Engineer	$140.00
Architect	$140.00
Landscape Architect	$140.00

(4) The penalty fee for late renewal shall be in the amount of ten dollars ($10.00) for each month or fraction of a month which lapses during the six (6)-month late renewal period before payment is tendered.

(5) Retirement Status.

(a) A registered certificate holder (over age 62) may place the registrant's certificate, if in good standing, in retirement status during the biennial license renewal cycle by filing a form designated by the Board. No fee shall be required. Such registrant shall renew the registrant's certificate by so notifying the Board.

(b) A registrant holding a retired certificate may refer to oneself as an engineer, architect, or landscape architect, including on correspondence and business cards, provided that the word "retired" is used in conjunction with the title. However, a holder of a retired certificate may not engage in or offer to engage in the practice of engineering, architecture or landscape architecture as defined by T.C.A. § 62-2-102. Practice or offer to practice in violation of this subparagraph shall be considered to be misconduct and may subject the registrant to disciplinary action by the Board.

(c) A registrant holding a retired certificate may not engage in any activity constituting the practice or offer to practice of engineering, architecture or landscape architecture in the State of Tennessee without first notifying the Board, in writing, as to a change to "active" status, satisfying the continuing education requirements of rule 0120-05-.08(d), and paying a biennial license renewal fee of one hundred forty dollars ($140.00).

(6) Inactive Status.

(a) A registrant may place the registrant's certificate, if in good standing, in inactive status during the biennial license renewal cycle by filing a form designated by the Board. No fee shall be required to establish inactive status. The registrant with an inactive certificate is still required to pay the applicable registration fee.

(b) A registrant holding an inactive certificate is not required to pay the professional privilege tax established in T. C. A. § 67-4-1701 *et. seq*., in accordance with T. C. A. § 67-4-1702(b).

(c) A registrant holding an inactive certificate may not engage in any activity constituting the practice or offer to practice of engineering, architecture, or landscape architecture in the State of Tennessee without first notifying the Board, in writing, as to a change to "active" status and satisfying the continuing education requirements of rule 0120-05-.08(d).

Authority: T.C.A. §§ 62-2-203(c) and (d) and 62-2-307(c).

Chapter 0120-02
Rules of Professional Conduct

Amendments

Rule 0120-02-.07 Misconduct is amended by adding subsection (e) to part five (5) so that it shall read:

(5) A registrant may be deemed by the Board to be guilty of misconduct in the registrant's professional practice if:

(a) The registrant has pleaded guilty or nolo contendere to or is convicted in a court of competent jurisdiction of a felony or fails to report such action to the Board in writing within sixty (60) days of the action;

(b) The registrant's license or certificate of registration to practice architecture, engineering or landscape architecture in another jurisdiction is revoked, suspended or voluntarily surrendered as a result of disciplinary proceedings or the registrant fails to report such action to the Board in writing within sixty (60) days of the action;

(c) The registrant fails to respond to Board requests and investigations within thirty (30) days of the mailing of communications, unless an earlier response is specified; or

(d) The registrant fails to comply with a lawful order of the Board.

(e) The registrant provides false testimony or information to the Board.

Rule 0120-02-.08 Seals is amended by changing parts two (2), four (4), eight (8), and adding a new part nine (9), so that it shall read: This incorporates the policies Definition of Original Sheets and Multiple Registrants' Seals on a Document.

(2) The registrant shall stamp with his seal the following documents:

(a) All original sheets of any bound or unbound set of working drawings or plans; original sheets shall include tracings or other reproducible sheets;

(b) The original cover or index page(s) identifying all specification pages covered; and

(c) The original cover or index page(s) for ~~D~~ design calculations that are submitted for review.

(4) ~~Any portions of working drawings, plans, reports or other design documents prepared by registered consultants shall bear the seal and signature of the consultant responsible therefor.~~ When multiple registrants contribute to a project, each registrant shall sign and seal the portions of the project for which that registered consultant is responsible. When multiple registrants in responsible charge provide content on the same document, all such registrants should seal the document, and, if there is any question, a description of the areas of responsibility should be included. 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.

(8)

(a) Subject to the requirements of this rule, rubber-stamp, embossed, transparent self-adhesive or electronically generated seals may be used. Such stamps or seals shall not include the registrant's signature or date of signature.

(b) Subject to the requirements of this rule, the registrant may affix an electronically generated signature and date of signature to documents. Electronic signatures and dates of signature ~~are not required to~~ must be placed either across the face and beyond the circumference of the seal~~, but must be placed~~ or adjacent to the seal. Documents that are signed using a digital signature must have an electronic authentication process attached to or logically associated with the electronic document. The digital signature must be:

i. Unique to the individual using it;
ii. Capable of verification;
iii. Under the sole control of the individual using it; and
iv. Linked to a document in such a manner that the digital signature is invalidated if any data in the document is changed.

(9) All working or partially completed plans, or any drawings that are not construction documents, shall be designated "preliminary – not for construction," "for review only," "draft," or other designation clearly indicating that the drawings are not complete.

Rule 0120-02-.09 Civil Penalties is amended by amending parts one (1), two (2), and four (4) so that it reads as follows: Incorporates the Civil Penalty Chart

(1) With respect to any registrant, the Board may, in addition to or in lieu of any other lawful disciplinary action, assess a civil penalty against such registrant for each separate violation of a statute, rule or order pertaining to the Board in accordance with the following schedule:

Violation	Penalty
(a) T.C.A. 62-2-306(b)……	~~$250-1000~~ $500-1000
(b) T.C.A. 62-2-308(a)(1) ……	~~250-1000~~ 500-1000
(c) Rule 0120-02-.02 ……	~~100-1000~~ 500-1000
(d) Rule 0120-02-.03 ……	500-1000
(e) Rule 0120-02-.04 ……	~~50-1000~~ 500-1000
(f) Rule 0120-02-.05 ……	500-1000
(g) Rule 0120-02-.06 ……	~~250-1000~~ 500-1000
(h) Rule 0120-02-.07 ……	500-1000
(i) Rule 0120-02-.08 ……	~~100-1000~~ 500-1000
(j) Board Order ……	~~100-1000~~ 500-1000

(2) With respect to any person required to be registered in this state as an architect, engineer or landscape architect, the Board may assess a civil penalty against such person for each separate violation of a statute in accordance with the following schedule:

Violation	Penalty
(a) T.C.A. §62-2-101 ……	~~$100-1000~~ $500-1000
(b) T.C.A. §62-2-105(a)(1) ……	500-1000
(c) T.C.A. §62-2-105(b)(1……	500-1000
(d) T.C.A. § 62-2-601 ……	500-1,000
(e) T.C.A. §62-2-602 ……	500-1000

(3) Each day of continued violation may constitute a separate violation.

(4) In determining the amount of civil penalty to be assessed pursuant to this rule, the Board may consider such factors as the following:

(a) Whether the amount imposed will be a substantial economic deterrent to the violation;

(b) The circumstances leading to the violation;

(c) The severity of the violation and the risk of harm to the public;

(d) The economic benefits gained by the violator as a result of non-compliance; ~~and~~

(e) The interest of the public~~.~~;

(f) Prior disciplinary action in any jurisdiction or repeated violations; and

(g) Self-reporting of the offense, cooperation with the Board's investigation, and any corrective action taken.

Authority: T.C.A. §§ 56-1-308 and 62-2-203(c). **Administrative History:** Original rule filed January 29, 1987; effective March 15, 1987. Amendment filed December 9, 1991; effective January 23, 1992. Amendment filed February 26, 1999; effective May 12, 1999. Amendment filed March 9, 2007; effective May 23, 2007. Amendment filed January March, 2011; effective June 7, 2011.

Rule 0120-02-.10 Other Enforcement Actions is amended as follows: This incorporates the Law and Rules Exam Policy.

With respect to any registrant, the Board may, in addition to or in lieu of any other lawful disciplinary action, take enforcement action against any registrant who is a respondent in a disciplinary case. Other enforcement actions may include, but are not limited to, the following:

(1) Passage of a laws and rules examination with a minimum passing score of 80%;

(2) Completion of additional, Board-assigned continuing education hours (with appropriate documentation required); or

(3) Assignment of a probationary period with peer review of all technical work, accompanied by reporting requirements from the reviewer.

Chapter 0120-04
Interior Designers

Amendments

The Table of Contents is amended by repealing rule 0120-04-.09 Registration Without Examination so that the amended Table of Contents shall read as follows:

0120-04-.01 Definitions
0120-04-.02 Applicability
0120-04-.03 Applications
0120-04-.04 Education Requirements
0120-04-.05 Experience Requirements
0120-04-.06 Initial Registration
0120-04-.07 Duplicate Certificates of Registration
0120-04-.08 Renewal of Registration
0120-04-.09 ~~Registration Without Examination~~ Repealed
0120-04-.10 Professional Conduct
0120-04-.11 Civil Penalties
0120-04-.12 Other Enforcement Actions
0120-04-.13 Notification to the Board

Rule 0290-04-.10 Professional Conduct is amended by adding subsection (e) to part fourteen (14) so that it reads as follows:

(14) The registrant may be deemed by the board to be guilty of misconduct if:

(a) The registrant has pleaded guilty or nolo contendere to or is convicted in a court of competent jurisdiction of a felony or fails to report such action to the Board in writing within sixty (60) days of the action;

(b) The registrant's license or certificate of interior design title is revoked, suspended or voluntarily surrendered as a result of disciplinary proceedings in another jurisdiction or

the registrant fails to report such action to the Board in writing within sixty (60) days of the action;

(c) The registrant fails to respond to Board requests and investigations within thirty (30) days of the mailing of communications, unless an earlier response is specified; ~~or~~

(d) The registrant fails to comply with a lawful order of the Board~~.~~; or

(e) The registrant provides false testimony or information to the Board.

Rule 0120-04-.11 Civil Penalties is amended by amending parts one (1), two (2), and four (4) so that it reads as follows: Incorporates the Civil Penalty Chart.

(1) With respect to any registrant, the Board may, in addition to or in lieu of any other lawful disciplinary action, assess a civil penalty against such registrant for each separate violation of a statute, rule or order pertaining to the Board in accordance with the following schedule:

Violation	Penalty
(a) T.C.A. § 62-2-308(a)(1)	500-$1,000
(b) Rule 0120-04-.10	500-1,000
(c) Board Order	~~100-1,000~~ 500-1000

(2) With respect to any person required to be registered in this state to use the title "registered interior designer," the Board may assess a civil penalty against such person for each separate violation of a statute in accordance with the following schedule:

Violation	Penalty
(a) T.C.A. § 62-2-101	~~$100-1000~~ $500-1000
(b) T.C.A. § 62-2-105(a)(1)	500-1,000
(c) T.C.A. § 62-2-105(b)(1)	500-1,000
(d) T.C.A. § 62-2-903	500-1,000

(3) Each day of continued violation may constitute a separate violation.

(4) In determining the amount of civil penalty to be assessed pursuant to this rule, the Board may consider such factors as the following:

(a) Whether the amount imposed will be a substantial economic deterrent to the violation;

(b) The circumstances leading to the violation;

(c) The severity of the violation and the risk of harm to the public;

(d) The economic benefits gained by the violator as a result of non-compliance; ~~and~~

(e) The interest of the public~~.~~;

(f) Prior disciplinary action in any jurisdiction or repeated violations; and

(g) Self-reporting of the offense, cooperation with the Board's investigation, and any corrective action taken.

Authority: T.C.A. §§ 56-1-308 and 62-2-203(c). Administrative History: Original rule filed March 9, 2011; effective June 7, 2011.

Rule 0120-04-.12 Other Enforcement Actions is amended as follows: This incorporates the Law and Rules Exam Policy.

With respect to any registrant, the Board may, in addition to or in lieu of any other lawful disciplinary action, take enforcement action against any registrant who is a respondent in a disciplinary case. Other enforcement actions may include, but are not limited to, the following:

(1) Passage of a laws and rules examination with a minimum passing score of 80%; or

(2) Completion of additional, Board-assigned continuing education hours (with appropriate documentation required).

Authority: T.C.A. § 62-2-203(c).

Repeals

Rule 0120-04-.09 Registration Without Examination is Repealed:

0120-04-.09 ~~REGISTRATION WITHOUT EXAMINATION.~~ Repealed.

~~(1) The education and experience requirements for an applicant for registration as a registered interior designer without examination shall be those prescribed in T.C.A. §62-2-905.~~

~~(2) For purposes of *T.C.A. §62-2-905*, an applicant shall be deemed to have "satisfactory interior design experience" if, for each year the applicant claims credit, the applicant has worked a minimum of one thousand six hundred (1,600) hours performing interior design services. For purposes of this rule, "satisfactory interior design experience" shall mean design services which do not necessarily require performance by an architect, including consultations, studies, drawings and specifications in connection with reflected ceiling plans, space utilization, furnishings or the fabrication of non-structural elements within the surrounding interior spaces of buildings, but specifically excluding the services specified by law to require other licensed professionals, such as the design of mechanical, plumbing, electrical and load bearing structural systems, except for specification of fixtures and their location within interior spaces.~~

~~(3) Satisfactory interior design experience shall be demonstrated to the Board by the applicant who shall provide the following:~~

~~(a) An affidavit by the applicant attesting that the applicant has used or been identified by the title "interior designer" and has engaged in the practice of interior design for the number of years for which the applicant is claiming experience;~~

~~(b) Three (3) references, on forms supplied by the Board, certifying that the applicant has provided interior design services for the period of experience claimed by the applicant; such references to be submitted from the following:~~

~~1. Interior designers who have passed the NCIDQ examination;~~

~~2. Registered architects; and/or~~

~~3. Professional members of any of the professional organizations specified under paragraph (3)(c)1. of this rule; and~~

(c) Documentation of the interior design experience claimed by using any one (1) of the two (2) methods enumerated below:

1. Providing certification of active professional membership in one (1) of the following professional organizations which require six (6) years education and experience substantially similar to the education and experience required by *T.C.A. §62-2-905*:

(i) American Society of Interior Designers;

(ii) Institute of Business Designers;

(iii) Interior Design Society; or

(iv) Any other professional interior design organization that requires successful completion of the NCIDQ Examination or its equivalent or the experience requirements of *T.C.A. §62-2-905*; or

2. Furnishing documentation of the number of years of interior design experience claimed as set forth below:

(i) Verification by the employer for each year worked under an interior designer who holds active professional membership in any of the professional organizations specified in paragraph (3)(c)1. of this rule, or a registered architect; and/or

(ii) A combination of no less than three (3) of the following documents per year as proof of experience:

(I) Tax returns listing occupation as interior designer or Schedule C listing business as interior design;

(II) Affidavits from clients, attesting to the interior design services provided and when the applicant provided such services;

(III) Business licenses; or

(IV) Tax identification numbers issued prior to January 1, 1988; and/or

(iii) Equivalent proof as determined by the Board.

(4) Notwithstanding any provision to the contrary, no more than one (1) year of credit for satisfactory design experience shall be given for interior-design-related sales experience.

(5) Notwithstanding any other provision to the contrary, an applicant claiming experience for the teaching of interior design may use such experience to qualify for registration without examination, pursuant to the provisions of *T.C.A. §62-2-905(2)*.

(a) Any combination totaling six (6) years of satisfactory interior design experience, as defined in this rule, and experience being regularly engaged in the teaching of interior design, such teaching experience being part of a program leading to a degree at an accredited institution recognized by the Board shall meet the requirements of *T.C.A. §62-2-905(2)*.

(b) To demonstrate satisfactory interior design experience, the applicant shall do so in the manner provided above by this rule. To demonstrate teaching experience, the applicant shall submit an affidavit by the applicant and a statement from an accredited institution stating the number of years the applicant was regularly engaged in the teaching of interior design.

~~(c) "Regularly engaged" shall mean a full-time teaching position in which no less than twelve (12) credit hours per semester or the equivalent hours per quarter are taught for each semester or quarter of a year.~~

Authority: *T.C.A. §§ 62-2-203(c) and 62-2-905.* ***Administrative History:*** *Original rule filed May 18, 1993; effective July 2, 1993. Amendment filed July 19, 200*

Chapter 0120-05
Continuing Education

Amendments

Rule 0120-05-.06 Types of Acceptable Continuing Education is amended by changing part two (2) so that it shall read: Amended to allow credit for patents and authoring accepted licensing exam items.

(2) Continuing education activities for which credit may be given by the Board include, but are not limited to the following:

(a) Successful completion or monitoring of college or university sponsored courses;

(b) Successful completion of courses which are awarded continuing education units (CEU's);

(c) Attendance at structured seminars, tutorials, short courses, correspondence courses, televised courses, Internet courses, or videotaped courses;

(d) Attendance at in-house educational programs sponsored by corporations or other organizations;

(e) Teaching or instructing as described in (a) through (d) above, unless teaching or instructing is the registrant's regular employment;

(f) Authoring published papers, articles, ~~or~~ books, or accepted licensing examination items;

(g) Making presentations at technical meetings;

(h) Attendance at program presentations at related technical or professional meetings where program content is comprised of at least one (1) PDH;

(i) Attendance at Board meetings and professional society legislative events, and active participation in a technical/professional society or organization, or a technical or professional public board, as an officer or committee member;

(j) Active participation in educational outreach activities involving K-12 or higher education students; ~~and,~~

(k) Patents; and,

(~~k~~l) All such activities as described in (a) through (~~j~~k) above must be relevant to the practice of architecture, engineering, landscape architecture or interior design as determined by the Board and may include technical, ethical or managerial content.

Authority: T.C.A. § 62-2-203(d).

Rule 0120-05-.07 Credits is amended as follows:

(1) Professional Development Hours of credit for qualifying courses successfully completed which offer semester hour, quarter hour, or CEU credit are as specified above. All other activities will be credited one (1) PDH for each contact hour with the following exceptions:

(a) Monitoring of university or college courses will be credited at one-third (1/3) the above-stated conversion table.

(b) Teaching or instructing qualifying courses or seminars will be credited at twice the PDH's earned by a participating student and may be claimed for credit only once.

(c) Authorship of papers, articles or books cannot be claimed until actually published. ~~Credit earned will equal preparation time spent not to exceed twenty-five (25) PDH's per publication.~~ A maximum of ten (10) PDH's per biennium may be claimed for each published peer-reviewed paper, article or book. A maximum of five (5) PDH's per biennium may be claimed for each published paper, article or book that is not peer-reviewed.

(d) Correspondence course PDH's may be considered acceptable to the Board, but the registrant shall submit, upon request, supporting documentation to demonstrate high quality course content.

(e) A maximum of eight (8) PDH's per biennium may be claimed for attendance at Board meetings and professional society legislative events, and active participation in technical/professional societies or organizations, or technical or professional public boards, as an officer or committee member.

(f) A maximum of four (4) PDH's per biennium may be claimed for active participation in educational outreach activities involving K-12 or higher education students.

(g) A maximum of ten (10) PDH's per biennium may be claimed for each patent.

(h) A maximum of five (5) PDH's per biennium may be claimed for writing accepted licensing examination items.

Authority: T.C.A. § 62-2-203(d).

Rule 0120-05-.11 Disallowance is amended as follows:

(1) If the Board disallows claimed PDH credits, the registrant shall ~~within one hundred eighty (180)~~ have ninety (90) days after notification ~~of same~~ to either substantiate the original claim or earn other credit to meet the minimum requirements.

A&E BOARD POLICIES
December 2015

Policies currently included or being added to the *Reference Manual*:

Policies currently included or being added to the *Reference Manual*—being added to the rules:

Policy currently included in the *Reference Manual*—recommend repeal (but adding to FAQs):

Policies being added to the rules:

Policies recommended for repeal:

Other policies:

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

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

COMMISSIONING OF ENGINEERED SYSTEMS

Commissioning is a field of services provided to validate design concepts and systems operations. A variety of levels of professional expertise, using both licensed and unlicensed professionals, are used to deliver commissioning services.

It is the position of the Board of Architectural and Engineering Examiners that commissioning of those systems that are engineered systems falls under the practice of architecture or engineering and must be performed under the responsible charge of a registered architect or professional engineer with the appropriate expertise.

Adopted 4-10-14

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

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

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

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

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:

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.
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.
BUILDING. Any structure used or intended for supporting or sheltering any use or occupancy. Source: Life Safety Code (NFPA 101), 2003 edition.
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.
COMMODITY. Combinations of products, packing material, and container upon which the commodity classification is based. Source: NFPA 13.
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.
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.
HAZARD CLASSIFICATIONS:

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.

Ordinary Hazard Occupancies –

- 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.

Extra Hazard Occupancies --

- 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.

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.

OCCUPANCY CLASSIFICATION. The purpose for which a building or portion thereof is used or intended to 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.

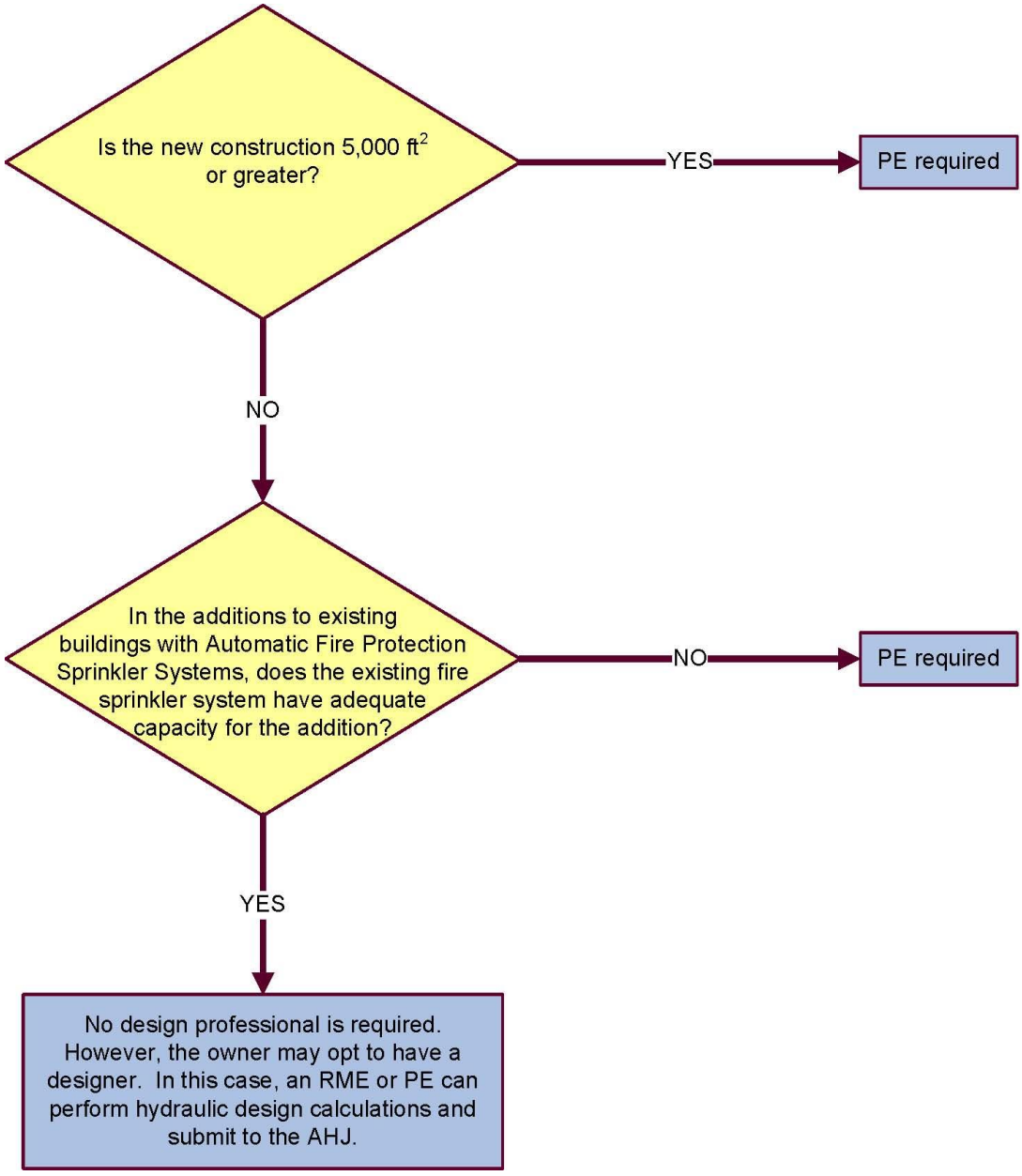
UPGRADE (upgraded, upgrading, upgrades). To raise to a higher grade or standard. Source: Model building code and sprinkler standards (defined in accordance with the latest adopted by the Tennessee State Fire Marshal's Office).

Adopted 8-25-05

Engineering Exemption Policy for Fire Sprinkler Design Decision Trees

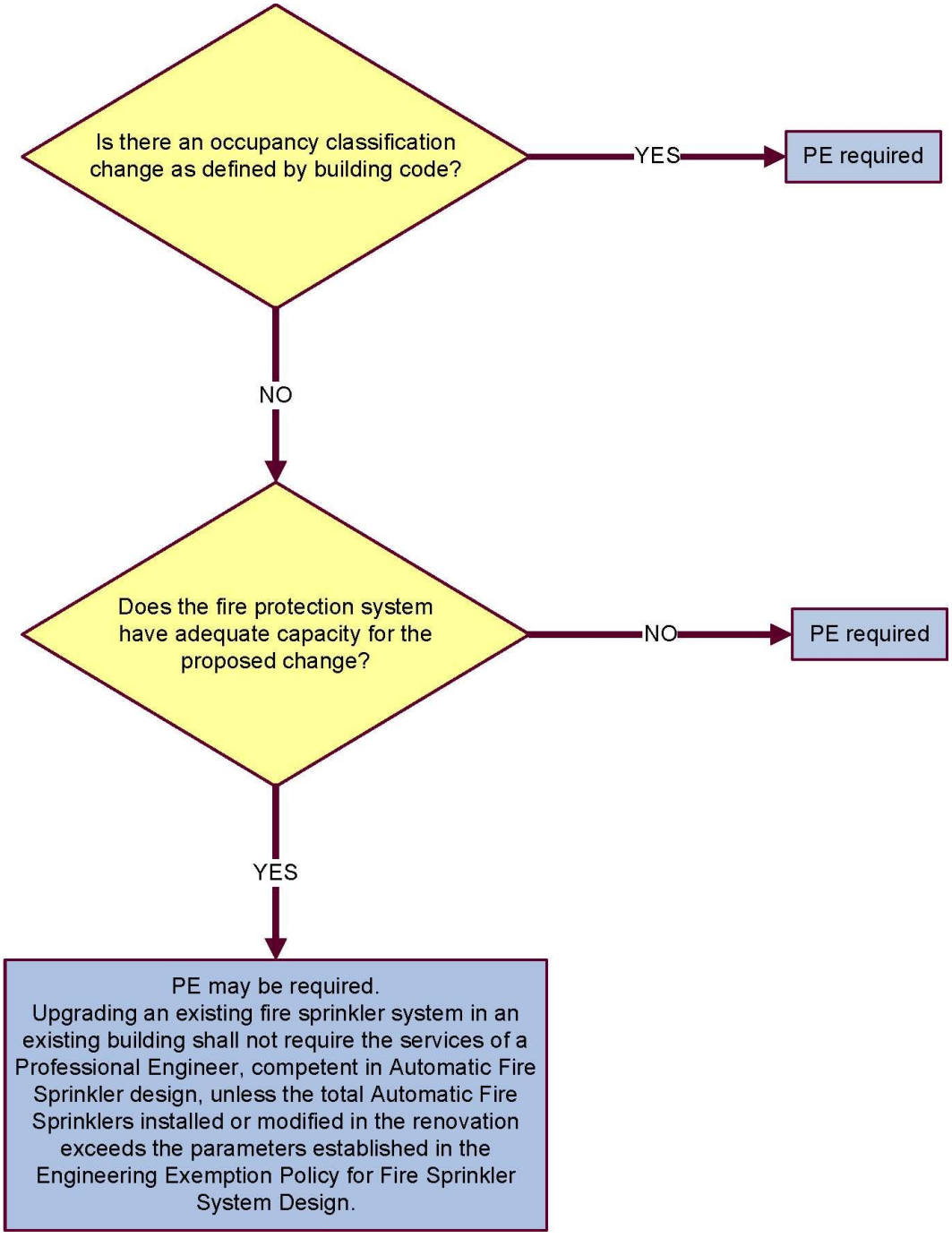
Engineering Exemption Policy for Fire Sprinkler Design Decision Tree

Fire Sprinkler System – New Construction Including Additions



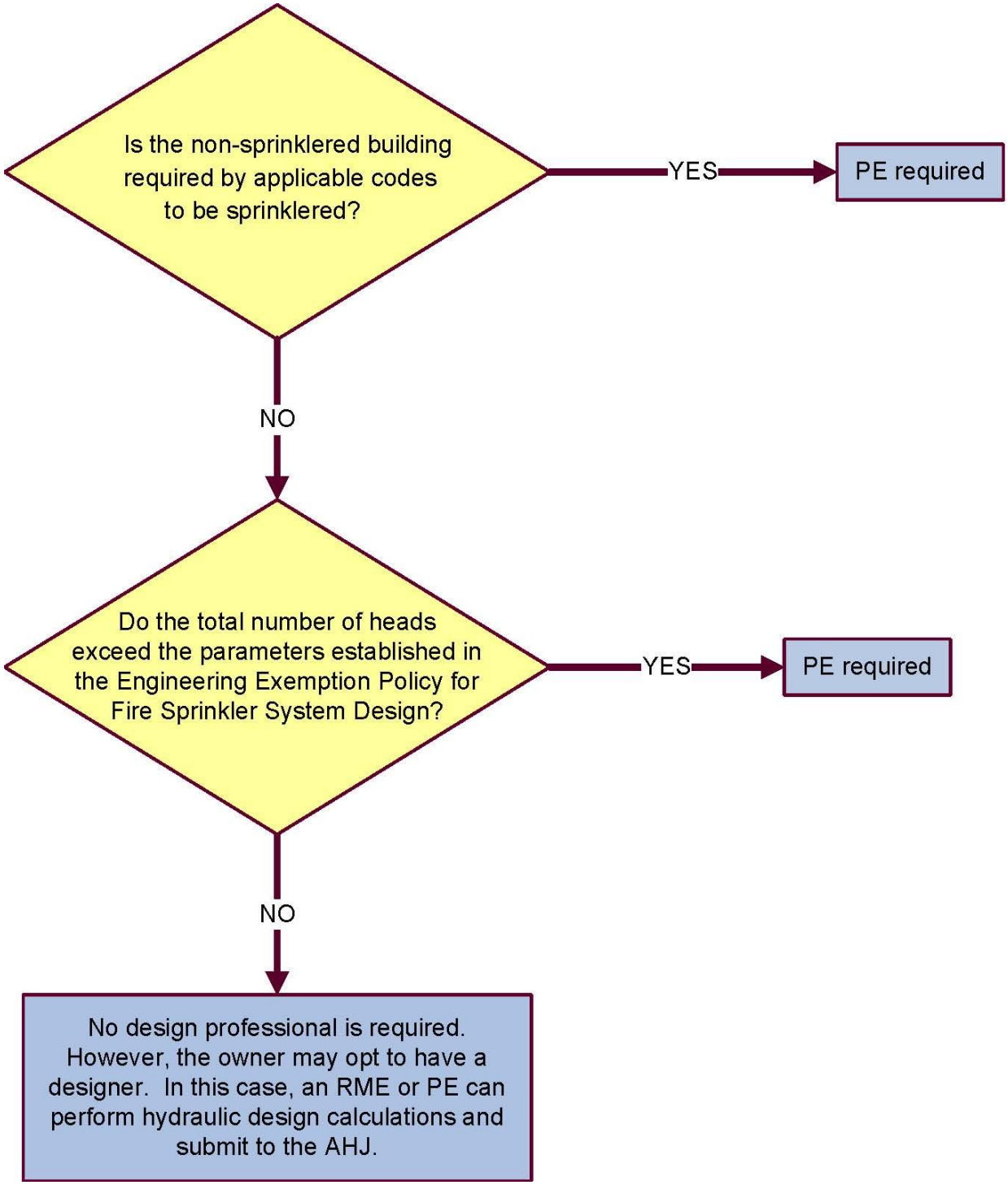
This Decision Tree is the companion document to the Engineering Exemption Policy for Fire Sprinkler System Design.

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

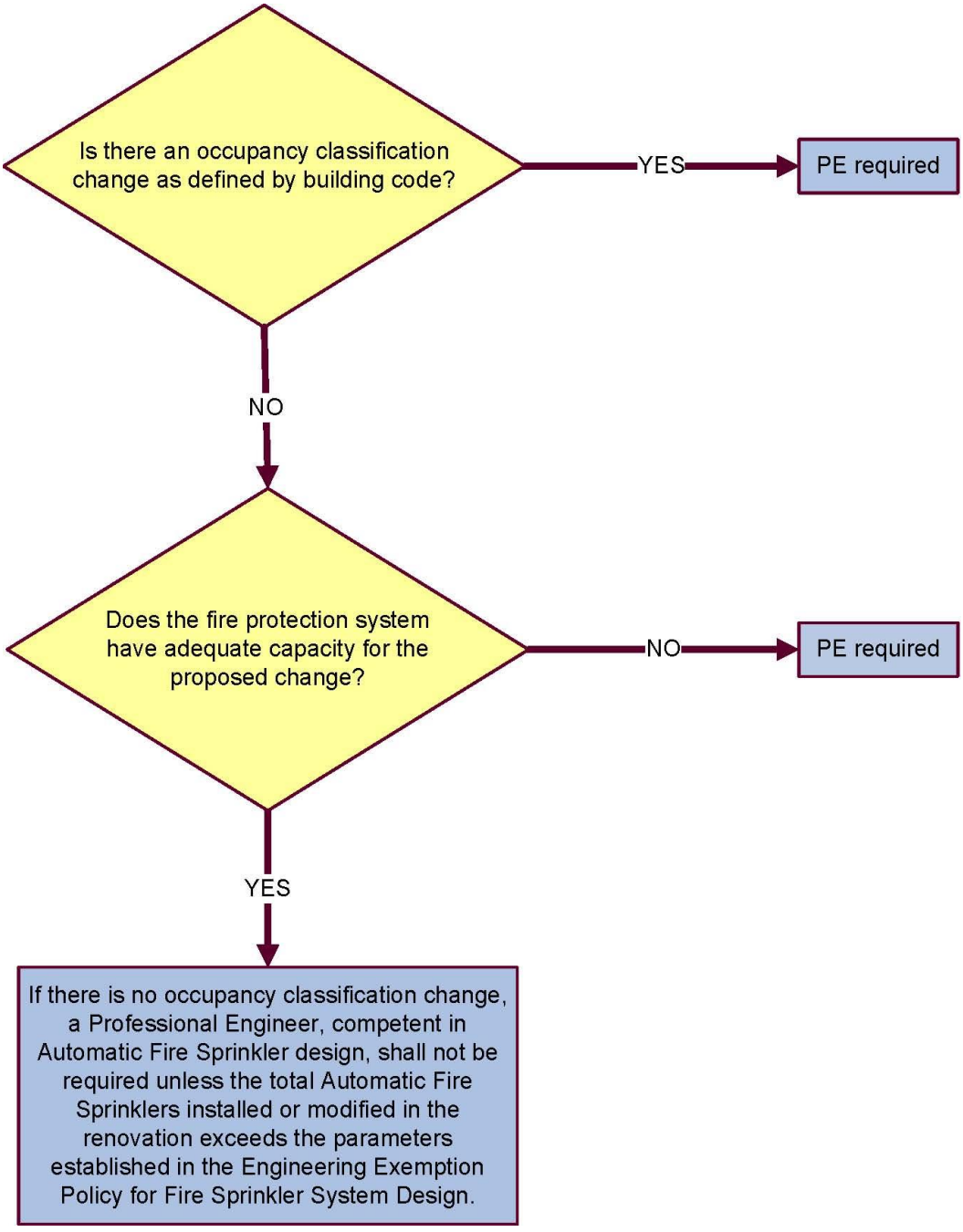


This Decision Tree is the companion document to the Engineering Exemption Policy for Fire Sprinkler System Design.

Fire Sprinkler System – Existing Non-Sprinklered Building



Fire Sprinkler System – Occupancy Classification Change



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

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

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

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

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. Roof Maintenance or Repair. 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
Revised and adopted 10-23-09

SEALING MANUFACTURED PRODUCT DETAILS, REVIEW LETTERS, AND SHOP DRAWINGS

The following provides the Board's policies regarding when a registrant may or may not seal a product detail, shop drawing, or review letter.

The design professional . . .

- Shall not seal a detail of a manufactured product designed by others.
- May seal a detail of a manufactured product if the design professional performs calculations to confirm design and re-draws detail.
- May incorporate a manufacturer's detail from a trusted source into a larger drawing as allowed by Rule 0120-02-.08(6)(a)(5) Seals.
- May seal a review letter of a manufactured product if the letter can be considered a report and includes language to define the responsibilities and limitations of the reviewing engineer.
- Shall not seal a shop drawing prepared by others; may only add a shop drawing review stamp to address conformance with design intent.
- May not be required by the authority having jurisdiction to seal the design of a manufactured product if the design is exempted by applicable law.

Adopted 10-10-14

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

SPILL PREVENTION, CONTROL AND COUNTERMEASURE (SPCC) PLANS

It is the policy of this Board that if the seal of a professional engineer is required on SPCC plans for a facility in Tennessee, then a Tennessee-registered professional engineer must seal the plans. The seal of an engineer registered in another jurisdiction would not be acceptable.

This decision is in accordance with Tennessee Code Annotated § 62-2-101, which states that only properly qualified and registered persons may practice engineering in this state. The stated purpose of this requirement is "to safeguard life, health and property, and to promote public welfare."

This policy would also apply to Storm Water Pollution Prevention Plans (SWPPP) for projects in Tennessee. If the seal of a professional engineer is required on these plans, then a Tennessee-registered professional engineer must seal the plans.

Adopted 10-12-12

POLICY FOR REVIEW OF SPRINKLER SHOP DRAWINGS

A fire protection sprinkler system contractor registered pursuant to Tennessee Code Annotated, Title 62, Chapter 32, Part 1, through its responsible managing employee, shall submit shop drawings of proposed fire protection sprinkler system installations. After receipt of the shop drawings, the authority having jurisdiction (AHJ) will review the drawings and will approve or disapprove the shop drawings.

This policy is not intended to circumvent the requirement for plans prepared and sealed by registered architects and/or engineers where appropriate; rather, the policy is intended to allow the sprinkler system contractor to submit shop drawings to provide for the installation of the sprinkler systems. These drawings shall be coordinated with the architect or engineer of record. The architect or engineer of record shall always provide the design intent of the system and shall 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 engineering decisions. The registered architect or engineer shall also provide design from the point of service—that point at which the system is dedicated solely to fire protection—to the building.

This policy is also not intended to result in the fire protection sprinkler system contractor being assigned the architect’s or engineer’s design responsibilities concerning sprinkler drawings. The design architect or engineer shall not require the sprinkler contractor to provide shop drawings sealed by a registered engineer. The designer shall not assign the engineering responsibilities to the sprinkler contractor. This is not intended to prevent a fire protection sprinkler system contractor from providing design-build services.

Adopted 4-10-97
Revised and adopted 6-4-15

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

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

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

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

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

INACTIVE STATUS

The Tennessee State Board of Architectural and Engineering Examiners, in the absence of regulations prescribing an "inactive" status of registration, construes Chapter 529, Section 8, of the Public Acts of 1992, to permit registered architects, engineers and landscape architects who are not actively engaged in the practice of their respective professions in the State of Tennessee to claim an exemption from the professional privilege tax established therein by presenting the Board with a certified affidavit attesting to such inactive status. The Board interprets the term "inactive" to preclude any activity constituting the practice of architecture, engineering or landscape architecture requiring registration under the provisions of Tennessee Code Annotated, Title 62, Chapter 2.

Any registrant who has claimed "inactive" status in the manner described above may not engage in any activity constituting the practice of architecture, engineering or landscape architecture in the State of Tennessee requiring registration under Tennessee Code Annotated, Title 62, Chapter 2, without first notifying the Board as to a change to "active" status. The registrant is required to pay the renewal fee even while on “inactive” status.

Any registrant who misrepresents his or her "inactive" status or, after having claimed "inactive" status, engages in the practice of architecture, engineering or landscape architecture in this state without giving prior written notification to the Board as to a change to "active" status, shall be deemed to be guilty of misconduct in the practice of their respective profession for the purposes of Tennessee Code Annotated, Section 62-2-308, and subject to disciplinary action by the Board.

AFFIDAVIT ESTABLISHING INACTIVE STATUS

STATE OF _____

COUNTY OF _____

I, _____, Certificate No. _____, and Social Security No. _____, hereby certify that: I do not engage in the practice of architecture, engineering or landscape architecture in the State of Tennessee in that I do not engage in any of the activities requiring me to be registered as an architect, engineer or landscape architect, under Tennessee Code Annotated, Title 62, Chapter 2, and that I have read and understand the above-stated policy of the Tennessee Board of Architectural and Engineering Examiners as to attesting to "inactive" status for the purpose of claiming an exemption from the professional privilege tax established in Tennessee Code Annotated § 67-4-1701 et. seq., as amended by Chapter 856, Section 7, of the Public Acts of 2002. I further certify that I understand that while holding an “inactive” registration, I will still be required to pay the applicable registration renewal fee and I may not use the title “architect,” “engineer,” or “landscape architect” in the State of Tennessee.

_____
AFFIANT

SWORN TO AND SUBSCRIBED before me this _____ day of _____, _____

_____

NOTARY PUBLIC

My Commission Expires: _____

Adopted 5-12-92
Revised and adopted 1-19-06
Revised and adopted 12-8-11

LAW AND RULES EXAM

Required in All Formal Disciplinary Actions

The Board asked that all Consent, Agreed, and Final Orders include language requiring respondent(s), at the discretion of the Board, to take and successfully pass, with a minimum score of 80%, the law and rules exam.

Adopted 5-16-96
Revised and adopted 10-4-97

REGISTRATION EXPIRED IN ANOTHER STATE, TENNESSEE RESIDENTS

A person who lives in Tennessee, whose registration has expired in the state where he or she passed the exam, may apply in the State of Tennessee as a new applicant; the Board will decide on a case-by-case basis if it will accept exam(s) passed by the applicant in another state.

Adopted 11-2-90
Revised and adopted 10-4-97

USE OF TITLE IF REGISTERED IN OTHER JURISDICTIONS

Tennessee Code Annotated §§ 62-2-102(a) and 62-2-103 prohibit individuals who are not registered to practice architecture, engineering or landscape architecture in this state from making public use of the title “architect,” “engineer” or “landscape architect,” or any appellation thereof which gives or is designed to give the impression that the person using same is an architect, engineer or landscape architect in Tennessee.

The Board has determined that individuals who are not registered in Tennessee, but who hold a like unexpired certificate of qualification or registration in another state, territory or possession of the United States, or another country, may use the title “architect,” “engineer” or “landscape architect,” provided that the jurisdiction(s) in which they are registered is/are written or printed after the title so as not to mislead the public regarding their credentials. The listing of jurisdictions after the title is not required on correspondence, business cards or other communication from an out-of-state office, provided that the individual is registered in that jurisdiction. However, these individuals are cautioned that they must become registered in Tennessee before offering architectural, engineering or landscape architectural services to the public.

Adopted 10-19-07
Revised and adopted 12-11-08

TITLE ACT CLARIFICATION

Individuals who:

- have architectural degrees from schools accredited by the National Architectural Accrediting Board; and have established records with the National Council of Architectural Registration Boards to meet the registration requirement for completion of the Intern-Architect Development Program may use the title "intern architect."

Individuals who:

- are graduates of a 4-year engineering curriculum accredited by the Accreditation Board for Engineering and Technology; and have taken and passed the Fundamentals of Engineering examination prepared by the National Council of Examiners for Engineering and Surveying; and have been certified as "engineer interns" or "engineers in training" may use the title "engineer intern" or "engineer in training."

Adopted 1-21-99

VIDEO TESTIMONY AND WRITTEN DEPOSITIONS

Discouraged by the Board during Formal and Informal Conferences

Be advised the Board, during formal and informal hearings, needs to have the ability to interact with the witness. Therefore, video testimony and written depositions are discouraged by the Board due to the technical dialog required. Teleconferencing may be an acceptable compromise to video testimony when the parties deem appropriate.

Adopted 7-25-96

ASSOCIATE ENGINEER MEMBERS, ROLE OF THE

Background

The concept of associate engineer members of the Board was discussed at the August 1994 retreat. The engineer members of the State Board of Architectural and Engineering Examiners suggested that three members of the engineering profession, recommended by the appropriate society, be appointed by the Governor to serve as associate engineer members. These members would have qualifications equal to or greater than those of Board members.

The associate engineer members would:

- assist Board members in review of applications, with the final determination made by the Board members;
- assist Board members in the periodic review and analysis of examination procedures;
- assist in giving the Fundamentals of Engineering and Principles and Practice of Engineering examinations;
- assist the Board in liaison with the Tennessee Society of Professional Engineers and Consulting Engineers of Tennessee;
- assist the legal staff with analysis of complaints and negotiated settlements with registrants;
- provide a "pool" from which future engineer Board members might be chosen.

The need for the additional engineering input into the licensure process was driven by the large number of applications for engineering registration in Tennessee (>800 per year), the delays in reviewing applications due to the work load on the three engineer Board members, the licensure issues which were not being addressed by the engineer members of the Board (NAFTA, examination changes, references, etc.) and the need for diversity of discipline representation on the Board.

In 1995, the registration law was changed to add TCA, Section 62-2-201(c), which provides for the appointment of three associate engineer members appointed by the Governor. In TCA, Section 62-2-201(c)(6), the associate engineer members are to "assist the Board with routine matters and responsibilities as requested by the board. Associate engineer members shall attend board meetings, committee meetings and other board functions only as required by the board." In TCA, Section 62-2-201(c)(7), associate engineer members are to "render technical assistance to the board and staff as authorized by the board."

Associate Engineer Member Activities

As associate engineer members of the Board, these appointees will function at the will and pleasure of the Board. Generally, the associate engineer members will assist the engineer members of the Board [as requested by the Board members] in the following areas:

1. review of applications for registration, with final recommendation for registration by engineer Board members;
2. analyze education and experience records of applicants who are graduates of non-ABET accredited and recommend action to the engineer Board members;

3. assist the Board legal staff in complaint investigation; analyze standard of care/practice issues such as policies on working drawings/shop drawings consistency among code enforcement agencies in requiring sealed plans;
4. evaluate continuing professional competence compliance by engineer registrants by participating in the random audits;
5. other activities which support the engineer Board members.

Associate engineer members will be expected to attend committee meetings and Board meetings, as required by the engineer members of the Board. Expenses incurred will be reimbursed at the same rate as Board members. Attendance of the associate engineer members at regional/national NCEES meetings will be at the discretion of the Board, based on the recommendation of the engineer Board members.

Adopted 7-25-96

COMITY APPLICATION REVIEW

1. The Executive Director is authorized to review comity applications which meet the following criteria and to make a recommendation to the Board regarding eligibility for registration:

    a. Architects. Applicants must have an unexpired certificate issued by the National Council of Architectural Registration Boards (NCARB), be classified as a "blue cover" transmittal, and meet the following criteria:
        i. Hold a degree in architecture from a program accredited by the National Architectural Accrediting Board (NAAB) at the time of graduation, or graduation was not more than two (2) academic years prior to accreditation.
        ii. Have completed at least three (3) years of practical experience in architectural work in compliance with T.C.A. § 62-2-503.
        iii. At least five (5) favorable references have been received in accordance with rule 0120-01-.09.
        iv. Passed the Architect Registration Examination prepared by NCARB.
        v. No record of disciplinary action or felony conviction.

    b. Engineers. Applicants must have a record with the National Council of Examiners for Engineering and Surveying (NCEES), be classified as a "Model Law Engineer" or "Model Law Structural Engineer" by NCEES, and meet the following criteria:
        i. Hold a four-year undergraduate degree in engineering from a program accredited by the Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET), or graduation was not more than two (2) academic years prior to accreditation.
        ii. Have completed at least four (4) years of progressive experience in the practice of engineering under the supervision of a registered professional engineer in compliance with rule 0120-01-.10(2).
        iii. At least five (5) favorable references have been received in accordance with rule 0120-01-.09.
        iv. Passed both the Fundamentals of Engineering and Principles and Practice of Engineering examinations prepared by NCEES.
        v. No record of disciplinary action or felony conviction.

2. Following review and recommendation by the Executive Director, a majority of members of the appropriate application review committee will then act upon the Director's recommendation, after which certificates of registration may be issued to approved applicants. Under no circumstances may certificates of registration be issued prior to approval by the appropriate review committee of the Board (reference T.C.A. § 62-2-302).

3. Comity applications not meeting the criteria of Section 1 above will be transmitted to the appropriate application review committee for evaluation.

4. The Executive Director is also authorized to review re-applications submitted by individuals previously registered in Tennessee and to make a recommendation to the Board regarding eligibility, provided that such applications meet the criteria of Section 1

above and provided that the continuing education records submitted meet the criteria for approval by Board staff as outlined in the Board's continuing education procedure.

5. This policy shall apply only to the review of comity applications and re-applications. Exam applications will continue to be reviewed by the appropriate application review committee.

Adopted 1-30-97
Repealed 10-6-06
Adopted 10-14-11

CONTINUING EDUCATION POLICY FOR ARCHITECTS RELATING TO HEALTH, SAFETY AND WELFARE

Health, safety and welfare (HSW) in architecture is defined as anything that relates to the structural integrity or soundness of a building or building site. Requirements for HSW training are intended to protect the public.

Health—aspects of architecture that have salutary effects among users of buildings or sites and address environmental concerns. Examples include appropriate air temperature, humidity, and quality; adequate provisions for personal hygiene; and use of non-toxic materials or finishes.

Safety—aspects of architecture intended to limit or prevent accidental injury or death of building site users. Examples include provision of fire-rated egress enclosures, automatic sprinkler systems, and stairs with correct rise-to-run proportions.

Welfare—aspects of architecture that engender positive emotional response among, or enable equal access by, users of buildings or sites. Examples include spaces with scale, proportion, materials, and color pleasing for the intended use; spaces that afford natural light and views of nature; and spaces that provide for users with disabilities.

To qualify for HSW credit, programs or courses must demonstrate that 75% of the content specifically addresses one or more of the topics outlined below:

Accessibility
Acoustics
Building design
Code of ethics
Construction administration
Construction contract laws, legal aspects
Construction documents, services
Construction functions, materials, methods, and systems
Energy efficiency
Environmental: asbestos, lead-based paint, toxic emissions
Environmental analysis and issues of building materials and systems
Fire: building fire codes—flame spread, smoke contribution, explosives
Fire safety systems: detection and alarm standards
Insurance to protect the owners of property and injured parties
Interior design
Laws and regulations governing the practice of architecture
Life safety codes
Materials and systems: roofing and waterproofing, wall systems, etc.
Material use, function and features
Mechanical, plumbing, electrical: system concepts, materials, and methods
Natural hazards (earthquake, hurricane, flood), related to building design
Preservation, renovation, restoration and adaptive reuse
Security of buildings, design
Site and soils analysis
Site design
Specification writing
Structural issues
Surveying methods, techniques
Sustainable design

Topics that do not qualify as HSW include computer software training and business practices, firm marketing, personnel and management issues.

Adopted 1-10-08

CONTINUING EDUCATION POLICY FOR ENGINEERS RELATING TO HEALTH, SAFETY AND WELFARE

These example topics, related to these health, safety and welfare issues, shall be considered acceptable for credit as professional development hours in fulfillment of the continuing education requirement for engineers registered with the Tennessee State Board of Architectural and Engineering Examiners. The registrant shall also meet the requirements per rule 0120-5-.06 (Types of Acceptable Continuing Education), of the Rules for Continuing Education established by the Tennessee State Board of Architectural and Engineering Examiners.

(A) LEGAL AND ADMINISTRATIVE ISSUES

1. Planning
2. Construction law
3. Governmental policies and laws that affect the use and/or development of a project
4. Development restrictions
5. Construction contracts and the responsibilities of the various parties under the construction contract
6. Professional liability issues
7. The bid evaluation process, including alternates, unit prices, bidder qualifications, bonds, etc.
8. Legal aspects of the bidding process, such as bid form, bid bond, addenda, etc.
9. Legal procedures for change orders and addenda
10. Ethical standards for professional practice
11. Project
    a. Management
    b. Business law
    c. Accounting/Finance
    d. Etc.

(B) INVENTORY

1. History of the profession and/or projects
2. Information sources, such as existing documentation
3. Surveying practices
4. Landscape architecture practices
5. Architectural practices

(C) ANALYSIS

1. Mathematics
2. Geology
3. Historical patterns
4. Sociological, historical and cultural influences on design
5. Behavioral factors relating to design
6. Resource preservation
7. Floodplain management principles
8. Stormwater management technologies
9. Water supply and conservation technologies
10. Characteristics of fire hazard areas
11. Visual analysis methods and techniques

(D) DESIGN ISSUES

1. Design principles
2. Functional relationships among program elements
3. Code requirements and design principles for universal accessibility
4. Principles of sustainability
5. Any codes related to the profession

(E) CONSTRUCTION METHODS AND PROCESSES

1. Construction methods and techniques
2. Construction equipment and technologies
3. Quality control procedures for construction, such as delivery, storage, testing, etc.
4. Sequencing of design, approval, permitting and construction activities
5. Methods of installation of construction materials
6. Factors influencing selection of materials (e.g., availability, cost, maintenance, location, survivability, dependability)

(F) DOCUMENTATION AND ADMINISTRATION

1. Components of specifications for a project
2. Specification types (e.g., material, workmanship, performance, proprietary)
3. General and supplemental conditions, special provisions, and technical specifications and their organizations
4. Computer technology for design and administration

(G) OTHER ISSUES

1. Any other beneficial topics that encourage, enhance, or reduce risk to the health, safety and welfare of the general public.

Adopted 1-10-08

CONTINUING EDUCATION POLICY FOR LANDSCAPE ARCHITECTS

Professions are regulated through the licensure process if the following can be demonstrated:

1) The practice of the profession by unqualified individuals represents a serious risk to the life, health, safety, welfare or economic wellbeing of the public;
2) The profession requires specialized knowledge and skill which would make it difficult or impossible for a lay person to evaluate the qualifications of a practitioner; and
3) The benefits of licensure to the public outweigh any potential harmful effects such as a decrease in the availability of practitioners or higher costs of services.

The following course topics provide an accurate and legally defensible method of defining the knowledge, skills and abilities (KSAs) required to safely practice the profession of landscape architecture. These same KSAs form the appropriate content for the Landscape Architect Registration Examination (L.A.R.E.).

These courses topics, related to these health, safety and welfare issues, shall be considered acceptable for credit as professional development hours in fulfillment of the continuing education requirement for Landscape Architects registered with the Tennessee State Board of Architectural and Engineers. The registrant shall also meet the requirements per 0120-5.-06 (Types of Acceptable Continuing Education), of the Rules for Continuing Education established by The Tennessee State Board of Architectural and Engineering Examiners.

KNOWLEDGE

(A) LEGAL AND ADMINISTRATIVE ISSUES

1. Planning and land use law
2. Construction law
3. Governmental policies and laws that affect the use and/or development of land
4. Development restrictions (e.g., zoning, easements, covenants, codes)
5. Construction contracts and the responsibilities of the various parties under the construction contract
6. Professional liability issues
7. The bid evaluation process, including alternates, unit prices, bidder qualifications, bonds, etc.
8. Legal aspects of the bidding process, such as bid form, bid bond, addenda, etc.
9. Legal procedures for change orders and addenda
10. Ethical standards for professional practice

(B) INVENTORY

1. Information sources, such as existing documentation, land surveys, land use plans, aerial surveys, remote sensing (GIS), zoning
2. Sources of information on specific site uses, such as sports fields, amphitheater seating, picnic areas, playground safety and golf courses, etc.
3. Surveying practices

(C) ANALYSIS

1. Mathematics

2. Geology
3. Historical patterns of land use
4. Sociological, historical and cultural influences on design
5. Behavioral factors relating to design
6. Psychological and sensory implications of landscape design
7. Natural site conditions and ecosystems
8. Resource preservation
9. Floodplain management principles
10. Littoral effects on design and construction (e.g., tidal)
11. Stormwater management technologies
12. Water supply and conservation technologies
13. Characteristics of fire hazard areas
14. Visual analysis methods and techniques
15. Topography
16. Hydrology
17. Hydraulics (e.g., stormwater collection systems, pumping systems)
18. Soils (e.g., pedology, mechanics)

(D) DESIGN ISSUES

1. Design principles (e.g., scale, function, balance)
2. Aesthetic principles of landscape design
3. Regional, urban and community planning principles
4. Influences of internal and external views on land use and development (e.g., views, vistas, view sheds)
5. Functional relationships among program elements
6. Influences of transportation systems on land use and development
7. Roadway alignment design principles
8. Intersection and stopping site distance considerations (e.g., vision cones)
9. Elements of vehicular and pedestrian circulation systems and their design requirements
10. Code requirements and design principles for universal accessibility
11. How previous, existing, or potential uses surrounding a site affect land use and development
12. Micro and macro climatic conditions and systems (e.g., wind, solar access)
13. Principles of sustainability (i.e., at regional, local and site scales)
14. Characteristics of plant material (e.g., size, shape, texture, color)
15. Plant materials including hardiness, moisture requirements, soil requirements, etc.
16. Landscape maintenance techniques, materials, equipment and practices
17. Noise attenuation and mitigation techniques

(E) CONSTRUCTION METHODS AND PROCESSES

1. Construction methods and techniques
2. Construction equipment and technologies
3. Quality control procedures for construction, such as delivery, storage, testing, etc.
4. Sequencing of design, approval, permitting and construction activities
5. Methods of installation of construction materials
6. Principles of grading and drainage
7. Land and water reclamation procedures (e.g., quarry, mines, landfill)
8. Wetland creation and mitigation
9. Materials and techniques for erosion and sedimentation control

10. Utility systems and their design requirements
11. Irrigation types and systems
12. Elements of lighting systems, including light sources and their design requirements
13. Factors influencing selection of plant materials (e.g., availability, cost, maintenance, location, survivability, dependability)

(F) DOCUMENTATION AND ADMINISTRATION

1. Presentation techniques (e.g., computer visualization/simulations, renderings, perspectives)
2. Common graphic symbols
3. Coordinate systems and layout techniques and conventions
4. Components of specifications for a project
5. Specification types (e.g., material, workmanship, performance, proprietary)
6. General and supplemental conditions, special provisions, and technical specifications and their organizations
7. Computer technology for design and administration

(G) DETAILS

1. Typical construction details (e.g., material, fasteners, finishes, assemblies)
2. Site construction materials, including availability, costs, basic characteristics and applications
3. Site amenities (e.g., benches, kiosks, waste receptacles)
4. Pools, fountains, and their design requirements
5. Playground equipment and their design requirements
6. Decks, walls, and overhead structures
7. Structural considerations below grade (e.g., soil bearing, footing foundation systems)
8. Structural considerations above grade (e.g., walls, handrails, spans, decking)
9. Pavement design and materials
10. Structural considerations for small structures

Adopted 1-22-2004

CONTINUING EDUCATION POLICY FOR REGISTERED INTERIOR DESIGNERS RELATING TO HEALTH, SAFETY AND WELFARE

Health/Safety:

Programs or courses must demonstrate that 75% of the content specifically addresses knowledge or practice of topics that protect the public or the environment:

- Building and Life Safety Codes, regulations and standards of practice
- Building regulations
- Products or designs implemented to protect the public or the environment
- Product performance standards and topics including, but not limited to, energy efficiency, acoustics, indoor air quality, lighting, or fire and life-safety systems

Welfare:

Programs or courses must demonstrate that 75% of the course content covers knowledge and practice of design that enhances the physical well-being of individuals and the environment:

- Social
- Psychological
- Financial
- Business practices
- Ethics
- Space design
- Budgets and estimating
- Construction administration
- Environmental and sustainability issues
- Finish materials and methods of construction detailing
- Special needs populations

General Interior Design Professional Knowledge (no HS or W):

The designation covers general knowledge regarding interior design where less than 75% of the course content covers knowledge and practice of applicable legal codes, building regulations and product performance standards that are implemented to protect the public and the environment or that enhance the social, psychological, financial and physical well-being of individuals and the environment.

Topics that do not qualify as HSW include computer software training and general business practices, firm marketing, personnel, and management issues.

Adopted 1-10-08

ENGINEERING EXAMINATION CHOICES

The Tennessee Board of Architectural and Engineering Examiners utilizes the testing services provided by the National Council of Examiners for Engineering and Surveying (NCEES) in determining the acceptability of an applicant for registration in the State of Tennessee. NCEES offers several different exams in specialty areas such as Structural, Control Systems, Environmental, etc., in addition to those which are directly related to basic academic programs (Civil, Electrical, Chemical, etc.). The choice of which exam an applicant will take on initial application for registration is usually made by the applicant, based on his/her academic background and area of competency, as determined by experience. The engineer members of the Board have exercised their authority under Tennessee Code Annotated, Section 62-2-401(a) to require an applicant to take an examination other than his/her first choice if, in the opinion of the engineer members of the Board, the applicant's area of competency as demonstrated by experience was different from the chosen examination area based on academic background.

Because registration is based on education, experience and examination, the evaluation of an applicant's acceptability for licensure in Tennessee is also based on these three factors. As the State of Tennessee does not license professionals by discipline (civil, environmental, etc.), the Board closely examines what the applicant presents as his/her area of competency as determined by education and experience. The examination then becomes a verification of the applicant's competency to practice engineering in the State of Tennessee and the method by which the Board ensures the continued protection of the public.

The existing procedure for registration via comity will not be altered. Professionals registered in other jurisdictions who meet the requirements for registration in Tennessee will be licensed as presently practiced.

Adopted 7-25-96
Revised and adopted 10-4-97
Revised and adopted 10-14-11

LETTERS OF CAUTION WHEN CERTAIN DISCIPLINARY ACTIONS ARE TAKEN IN ANOTHER JURISDICTION

When a registrant has a license or certificate of registration to practice architecture, engineering, or landscape architecture in another jurisdiction revoked, suspended, or voluntarily surrendered as a result of disciplinary proceedings, the registrant may be subject to disciplinary action before the Board. If the other jurisdiction imposes discipline less than the action stated above, the registrant is routinely issued a Letter of Caution by staff. The purpose of the caution letter is to advise the registrant that the Board has been notified of the disciplinary action and puts the registrant on notice to avoid similar infraction in our state.

Adopted 5-18-06

OFFICAL TRANSCRIPT WAIVER POLICY

The policy of the Board of Architectural and Engineering Examiners is that official transcripts must be submitted directly from each institution attended in order to ensure the authenticity of the documents. Student-issued transcripts or transcripts provided by an applicant are not generally accepted.

If official transcripts are no longer available or are unattainable (e.g., if the school is destroyed, records cannot be obtained for political reasons, etc.), the Board will consider requests to waive this requirement. In such cases, an applicant must submit an affidavit explaining the circumstances, an original transcript (copies will not be accepted), an original diploma showing the degree(s) conferred, and detailed course descriptions. Original documents will be returned to the applicant following the Board's review, and copies will be retained in the applicant's file. In circumstances in which an evaluation must be performed to determine equivalency, such documents (with the exception of the affidavit referenced above) must be submitted to the entity performing the evaluation for verification.

Waiver requests will be evaluated on a case-by-case basis. The Board will not waive official transcript requirements due to an applicant's financial obligations to a college or university or due to slow response time on the part of the college or university.

Adopted 8-14-13

APPLICATION REVIEW GUIDELINES

A. Felony Convictions: T.C.A. § 62-2-308(a)(1) states, in part, "The board may refuse to issue or renew, and revoke or suspend the certificate of registration of any architect, engineer, landscape architect or registered interior designer registered hereunder who is found guilty: . . . (B) Of gross negligence, incompetency, or misconduct in the practice of architecture, engineering, landscape architecture or in the use of the title "registered interior designer." Rule 0120-02-.07(5) states, in part, "A registrant may be deemed by the Board to be guilty of misconduct in his professional practice if: (a) He has pleaded guilty or nolo contendere to or is convicted in a court of competent jurisdiction of a felony." In regard to registered interior designers, rule 0120-04-.10(14) states, in part, "The registrant may be deemed by the board to be guilty of misconduct if: (a) He is convicted in a court of competent jurisdiction of a felony."

Felony convictions will be evaluated by the Board on a case-by-case basis utilizing the following criteria:

- Type and seriousness of offense, including whether the offense involves moral turpitude or otherwise reflects on the offender's moral character
- The offender's rehabilitation
- The offender's chance of recidivism
- Whether the offense directly related to the offender's professional practice
- The age of the offender when the crime was committed
- The offender's criminal history
- The amount of time elapsed since the offense(s) occurred

The ultimate goal is to determine the individual's fitness for licensure and to safeguard the public's health, safety and welfare.

B. Good Character and Repute: T.C.A. § 62-2-301(a) states, in part, "No person shall be eligible for registration who . . . is not of good character and repute." T.C.A. § 62-2-402 states that applicants for certification as an engineer intern must also be "of good character and repute."

Good character and repute may be established if the applicant: (a) Has not pleaded guilty or nolo contendere to or been convicted in a court of competent jurisdiction of a felony; (b) Has not, within ten years of application for certification or registration, committed any act involving dishonesty, fraud, misrepresentation, breach of fiduciary duty, negligence, or incompetence reasonably related to the applicant's proposed area of practice; (c) Has not engaged in fraud or misrepresentation in connection with the application for certification or registration, or related examination; (d) Has not had a certification or registration revoked or suspended for cause by this state or by any other jurisdiction, or surrendered a certificate or registration in lieu of disciplinary action; (e) Has not practiced without the required registration or certification in this state or in another jurisdiction within the five years immediately preceding the filing of the application for certification or registration by this state; or (f) Has not, within ten years of application for certification or registration, committed an act that would constitute unprofessional conduct, as set forth in chapter 0120-02 Rules of Professional Conduct or rule 0120-04-.10 Professional Conduct.

Adopted 12/9/10

ENGINEER COMMITTEE POLICIES

Guidelines for Allowing Distance Learning to Address Humanities/Social Sciences Deficiencies ONLY

All distance learning courses must meet or exceed the following requirements:

1. Must be offered by a two or four year regionally accredited institution.
2. Must have a formal course content and be taught by qualified faculty who work for the school.
3. Must have a formal evaluation through either a project or examination.
4. Courses must be pre-approved in writing by the Board.
5. Must have documented required instructional hours.
6. Must have a starting and ending period for each approved course.
7. Courses must be of a quality and character acceptable in an ABET-accredited program.
8. Courses must be offered in a venue that assures the security and validity of the final examination.
9. A maximum of twelve (12) semester hours will be allowed through distance learning.

Adopted 4/22/09

Criteria for Fulfillment of the ABET Humanities/Social Sciences (General Education) Requirement (in lieu of completing additional college coursework)

Progressive engineering experience in the U.S., if applicant has practiced over five (5) years in the U.S. = **0.5 semester hour per year**

Involvement in one (1) civic or professional organization in the U.S. = **0.5 semester hour per year**

Passing tests for U.S. citizenship = **1 semester hour**

Continuing education in ethics/humanities/social sciences (earned within 2 years of application date) = **1 semester hour per 15 PDH's**

Advanced degree from a U.S. institution = **9 semester hours**

CLEP credits will be accepted to fulfill up to 12 semester hours of humanities/social sciences deficiencies only if they are offered by a regionally accredited college or university and appear on the official college or university transcript.

Adopted 12/10/08
Revised and adopted 4/22/09
Revised and adopted 12/9/09
Revised and adopted 10/14/15

Evaluation of Non-ABET Accredited Programs

Non-ABET accredited programs will be evaluated according to the most recently adopted NCEES Engineering Education Standard.

Adopted 4/22/09
Revised and adopted 12/8/10

Guidelines for Allowing Experience Credit for Cooperative Education Programs

In order to receive one (1) year of experience credit for experience obtained in a cooperative education program (allowed by rule 0120-01-.10), the following requirements must be met:

- The experience must be obtained in an established cooperative education program and carried out within the framework of an EAC/ABET-accredited engineering curriculum.

- The experience must be listed on the applicant's college transcript.

- The experience must be at least three (3) semesters in length (to ensure a full year of experience).

Adopted 2/16/11