The Florida Senate

BILL ANALYSIS AND FISCAL IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: The Professional Staff of the Committee on Innovation, Industry, and Technology

BILL:	CS/SB 1214
INTRODUCER:	Innovation, Industry, and Technology Committee and Senator Baxley
SUBJECT:	Engineers
DATE:	January 27, 2020
REVISED:	2/6/20

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Kraemer	Imhof	IT	**Fav/CS**
2.			CM	
3.			RC	

Please see Section IX. for Additional Information:

COMMITTEE SUBSTITUTE - Technical Changes

I. Summary:

CS/SB 1214 authorizes the Florida Board of Professional Engineers (board) to establish minimum standards of practice for the profession of structural engineering, which includes the structural analysis and design of components for threshold buildings (those higher than 50 feet/three stories, or with an occupancy of greater than 500 persons) as well as the practice of engineering under current law.

The bill prohibits, effective March 1, 2022, the practice of professional structural engineering by any person who is not a licensed professional structural engineer or otherwise exempted from licensure under ch. 471, F.S., related to engineering.

Under the bill, the following titles may not be used by persons who are not licensed, or exempt from licensing, under current law relating to engineering: licensed professional engineer, licensed structural engineer, professional structural engineer, or registered professional engineer.

The bill authorizes the board to certify persons as qualified to practice structural engineering if they are licensed or qualify for licensure as an engineer, have at least four years of active structural engineering experience under the supervision of a licensed engineer, have passed certain professional examinations, and meet other administrative requirements. The bill also requires the board to certify qualified foreign or out-of-state applicants for licensure by endorsement in certain circumstances.

See Section V, Fiscal Impact Statement.

The bill provides an effective date of July 1, 2020.

II. Present Situation:

Florida Board of Professional Engineers

The practice of engineering is regulated by the board. Unlike most Department of Business and Professional Regulation (DBPR) professions, the administrative, investigative, and prosecutorial services for the board are not provided by DBPR. The DBPR contracts with the Florida Engineers Management Corporation (FEMC), a nonprofit corporation, to provide such services.[1] The FEMC is a public-private nonprofit association that has contracted with the DBPR to handle administrative, investigative, and prosecutorial services for the Board of Professional Engineers.[2]

Section 471.008, F.S., authorizes the board to adopt rules to implement the provisions of ch. 471, F.S., and for ch. 455, F.S., which provides the general licensing procedures for professional licensing by the DBPR and its professional licensing boards. The board has adopted responsibility rules for the profession of engineering addressing a variety of issues, including the design of structures and fire protection systems.[3]

There were 65,196 licensed professional engineers in Fiscal Year 2018-2019.[4] The FEMC processed 195 complaints regarding engineering practice during that period. Only 140 complaints were found to be legally sufficient to proceed, and the FEMC filed 30 administrative complaints in cases where probable cause was found relating to a violation of the practice act.[5]

Professional Engineer License Qualifications and Exemptions

Section 471.013, F.S., provides the license qualifications for a professional engineer. In order to be licensed as a professional engineer, a person must successfully pass two examinations: the fundamentals examination and the principles and practices examination. Prior to being permitted to sit for the fundamentals examination, an applicant must have graduated from:

- An approved engineering curriculum of four years or more in a board-approved school, college, or university; or

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[1] *See* s. 471.038, F.S., the Florida Engineers Management Corporation Act, for the duties and authority of the FEMC.
[2] *See* the Annual Report of the FEMC for FY 2018-2019 at https://fbpe.org/wp-content/uploads/2019/09/2018-19-FEMC-Annual-Report.pdf (last visited Jan. 19, 2020), and the contract between DBPR and FEMC for the period between July 1, 2017 and June 30, 2021 at https://fbpe.org/wp-content/uploads/2018/07/FEMC-DBPR-Contract-2017.pdf (last visited Jan. 19, 2020).
[3] The responsibility rules are in Fla. Admin. Code Chapters 61G15-30, 61G15-31, 61G15-32, and 61G15-33 (2020).
[4] There were 597 inactive professional engineering licenses in that fiscal year. *See Annual Report, Division of Professions, Division of Certified Public Accounting, Division of Real Estate, and Division of Regulation, Fiscal Year 2018-2019*, at p. 19, at http://www.myfloridalicense.com/DBPR/os/documents/DivisionAnnualReport_FY1819.pdf (last visited Jan. 19, 2020).
[5] *See* the Annual Report of the FEMC for FY 2018-2019 at https://fbpe.org/wp-content/uploads/2019/09/2018-19-FEMC-Annual-Report.pdf, at pp. 4-5 (last visited Jan. 19, 2020), which indicates the FEMC also filed 92 Final Orders with DBPR; entered into 12 negotiations and tried three administrative hearings; dismissed 16 cases after re-consideration; issued eight reprimands, six suspensions, four probations, four project reviews, and one license restriction; and imposed $57,528.60 in administrative costs and $47,000.00 in fines. The board also issued 82 final orders against licensees.

- An approved engineering technology curriculum of four years or more in a board-approved school, college, or university.[6]

Under s. 471.013(2), F.S., the board must certify for licensure any applicant who has submitted proof of being at least 18 years old and has the required engineering experience. For graduates of an approved engineering science curriculum, the applicant must have a record of at least four years of active engineering experience sufficient to indicate competence to be in responsible charge of engineering. Graduates of an approved engineering technology curriculum must have a record of at least six years of such qualified experience.[7]

Section 471.003(2), F.S., identifies those persons who are exempted from the licensing requirements of ch. 471, F.S.

Fees

Section 471.011, F.S., authorizes the board by rule to establish fees to be paid for applications, examination, reexamination, licensing, renewal, reactivation, inactive status applications, and recordmaking and recordkeeping. It also provides that qualification of a business organization must not require payment of a fee.

Special Inspectors of Threshold Buildings

Section 471.015(7), F.S., authorizes the board to establish by rule the qualifications for certification of licensees as inspectors of threshold buildings. A "threshold building" is "any building which is greater than three stories or 50 feet in height, or which has an assembly occupancy classification as defined in the Florida Building Code which exceeds 5,000 square feet in area and an occupant content of greater than 500 persons."[8]

The board is also authorized to establish minimum qualifications for the qualified representative of the special inspector who is authorized to perform inspections of threshold buildings on behalf of the special inspector. Current law does not authorize the board to establish minimum training or education requirements for maintaining a certification or qualification as a special inspector.

The agency charged with enforcing the building code (enforcing agency)[9] must require a special inspector to perform structural inspections on a threshold building pursuant to a structural inspection plan prepared by the engineer or architect of record.[10]

Use of Engineer Seals

Section 471.025(1), F.S., authorizes the board to prescribe, by rule, one or more forms of seal to be used by licensed engineers. Each licensee must obtain at least one seal. All final drawings, specifications, plans, reports, or documents prepared or issued by the licensee and filed for

[6] Section 471.013(1), F.S.
[7] *See* ss. 471.015(2)(a)1. and 2., F.S.
[8] *See* s. 553.71(12), F.S.
[9] *See* s. 553.71(5), F.S., defining the term "local enforcement agency."
[10] Section 553.79(5)(a), F.S.

public record and all final documents provided to the owner or the owner's representative must be signed by the licensee, dated, and sealed with the seal. The signature, date, and seal are evidence of the authenticity of the document to which they are affixed.

A licensee may not affix or permit to be affixed his or her seal, name, or digital signature to any plan, specification, drawing, final bid document, or other document that depicts work which he or she is not licensed to perform or which is beyond his or her profession or specialty.[11]

A successor engineer seeking to reuse documents previously sealed by another engineer must be able to independently re-create all of the work done by the original engineer, and assumes full professional and legal responsibility by signing and affixing his or her seal t the assumed documents.[12]

Use of Descriptive Titles

Section 471.031, F.S., sets forth the permissible and prohibited titles for persons licensed under ch. 471, F.S., and for persons who are otherwise exempted from such licensure. With certain exceptions for persons exempted from licensure, the use of the name "professional engineer" or any other title, designation, abbreviation, or indication that a person holds an active license as an engineer when the person is not licensed under ch. 489, F.S., is prohibited, along with use of the following titles:

- Agricultural engineer;
- Air-conditioning engineer;
- Architectural engineer;
- Building engineer;
- Chemical engineer;
- Civil engineer;
- Control systems engineer;
- Electrical engineer;
- Environmental engineer;
- Fire protection engineer;
- Industrial engineer;
- Manufacturing engineer;
- Mechanical engineer;
- Metallurgical engineer;
- Mining engineer;
- Minerals engineer;
- Marine engineer;
- Nuclear engineer;
- Petroleum engineer;
- Plumbing engineer;
- Structural engineer;

[11] Section 471.025(3), F.S.
[12] Section 471.025(4), F.S. The original engineer is released from any professional responsibility or civil liability for work that is assumed.

- Transportation engineer;
- Software engineer;
- Computer hardware engineer; and
- Systems engineer.

Imposition of Discipline by the Board

The acts that constitute grounds for the imposition of discipline by the board are set forth in s. 471.033, F.S. Such discipline includes denial of an application for licensure, suspension or revocation of a license, imposition of fines, reprimands, probation, or restitution, and restriction of the authorized scope of practice of a licensee.

III. Effect of Proposed Changes:

Section 1 of the bill amends s. 471.003, F.S., to prohibit, effective March 1, 2022, the practice of professional structural engineering by any person who is not a licensed professional structural engineer or otherwise exempted from licensure under ch. 471, F.S., related to engineering.

The bill prohibits the use the name or title of "licensed engineer," "licensed professional engineer," "licensed structural engineer," "professional structural engineer," or "registered structural engineer" or any other title that indicates an unlicensed person is a licensed professional structural engineer in this state. The bill amends s. 471.003(2), F.S., to clarify that certain persons are not required to be licensed as a licensed professional structural engineer, and this exemption includes contractors performing work designed by a professional structural engineer.

Section 2 of the bill amends s. 471.005, F.S., to define the term "licensed professional structural engineer" to mean a person who is licensed to engage in the practice of professional structural engineering in Florida under ch. 471, F.S.

The bill defines the term "professional structural engineering" to mean a service or creative work that includes the structural analysis and design of structural components or systems for threshold buildings.[13] The term includes engineering[14] that requires significant structural engineering education, training, experience, and examination, as determined by the board.

Section 471.005(7), F.S., defines the term "engineering" to include:

> the term "professional engineering" and means any service or creative work, the adequate performance of which requires engineering education, training, and experience in the application of special knowledge of the mathematical, physical, and engineering sciences to such services or creative work as consultation, investigation, evaluation, planning, and design of engineering works and systems, planning the use of land and

[13] Section 553.71(12), F.S., provides a "threshold building" is "any building which is greater than three stories or 50 feet in height, or which has an assembly occupancy classification as defined in the Florida Building Code which exceeds 5,000 square feet in area and an occupant content of greater than 500 persons."
[14] *See* s. 471.005(7), F.S., for the definition of engineering.

> water, teaching of the principles and methods of engineering design, engineering surveys, and the inspection of construction for the purpose of determining in general if the work is proceeding in compliance with drawings and specifications, any of which embraces such services or work, either public or private, in connection with any utilities, structures, buildings, machines, equipment, processes, work systems, projects, and industrial or consumer products or equipment of a mechanical, electrical, hydraulic, pneumatic, or thermal nature, insofar as they involve safeguarding life, health, or property; and includes such other professional services as may be necessary to the planning, progress, and completion of any engineering services. A person who practices any branch of engineering; who, by verbal claim, sign, advertisement, letterhead, or card, or in any other way, represents himself or herself to be an engineer or, through the use of some other title, implies that he or she is an engineer or that he or she is licensed under this chapter; or who holds himself or herself out as able to perform, or does perform, any engineering service or work or any other service designated by the practitioner which is recognized as engineering shall be construed to practice or offer to practice engineering within the meaning and intent of this chapter.

The bill allows a retired professional structural engineer to be granted use of the title "professional engineer, retired" or "professional structural engineer, retired" by the board, if the retiree has:

- Been licensed as a professional engineer by the board;
- Relinquished or not renewed a license; and
- Applied to and been approved by the board to use such title.

Section 3 of the bill amends s. 471.011, F.S., relating to fees for license applications, temporary licenses, license renewals, inactive licenses, examinations, and records, to provide that such fees are also applicable to the regulation of structural engineering.

Section 4 of the bill amends s. 471.013(2)(a), F.S., relating to licensure, to include a reference to licensed professional structural engineers.

Section 5 of the bill amends s. 471.015, F.S., to authorize the board to certify persons as qualified to practice professional structural engineering if they are licensed or qualify for licensure as an engineer, have at least four years of active professional structural engineering experience under the supervision of a licensed professional engineer, have passed certain professional examinations, and meet other administrative requirements.

Under the bill, an applicant for licensure as a professional structural engineer must:

- Be licensed as an engineer, or qualify for licensure, under ch. 471, F.S.;
- Submit an application in the format prescribed by the board;
- Pay a fee established by the board;
- Provide satisfactory evidence of good moral character, as defined by the board.

- Provide a record of four years of active professional structural engineering experience, as defined by the board, under the supervision of a licensed professional engineer; and
- Have successfully passed the 16-hour National Council of Examiners for Engineering and Surveying Structural Engineering examination.

Before March 1, 2022, a qualified applicant, in lieu of satisfying the experience and examination requirements set forth above, may instead:

- Submit a signed affidavit in the format prescribed by the board that the applicant is currently a licensed engineer in Florida and has been engaged in the practice of professional structural engineering with a record of at least four years of active professional structural engineering design experience;
- Possess a current professional engineering license and file the necessary documentation as required by the board, or possess a current threshold inspector license; and
- Agree to meet with the board or its representative at the board's request, for the purpose of evaluating the applicant's qualifications for licensure as a professional structural engineer.

An applicant qualified for licensure as an engineer may simultaneously apply for licensure as a professional structural engineer, if all the above requirements and all education, examination, experience, and good moral character requirements set forth in s. 471.013, F.S., are met.

The bill sets forth the requirements for board certification of an applicant as qualified for licensure as a professional structural engineer by endorsement:

- An applicant who holds a license to practice either engineering or professional structural engineering issued by another state or territory of the United States, if the criteria for issuance of the license were substantially the same as the licensure criteria that existed in Florida at the time the license was issued; or
- An applicant who holds a valid license to practice structural engineering issued by another state or territory of the United States and who has successfully passed one of the following 16-hour examination combinations:
    - The 8-hour National Council of Examiners for Engineering and Surveying[15] Structural Engineering I examination and the 8-hour National Council of Examiners for Engineering and Surveying Structural Engineering II examination.
    - The 8-hour National Council of Examiners for Engineering and Surveying Structural Engineering II examination and either the 8-hour National Council of Examiners for Engineering and Surveying Civil: Structural examination or the 8-hour National Council of Examiners for Engineering and Surveying Architectural Engineering examination.
    - The 16-hour Western States Structural Engineering examination.
    - The 8-hour National Council of Examiners for Engineering and Surveying Structural Engineering II examination, and either the 8-hour California Structural

[15] The National Council of Examiners for Engineering and Surveying (NCEES) is a nonprofit organization dedicated to advancing professional licensure for engineers and surveyors. In the United States, engineers and surveyors are licensed at the state and territory level. NCEES was created in 1920 and provides services for licensure and facilitation of mobility among licensing jurisdictions, including the development and scoring of examinations for licensure. *See* https://ncees.org/about/ (last visited Jan. 19, 2020).

Engineering Seismic III examination, or the 8-hour Washington Structural Engineering III examination.

Section 6 of the bill amends s. 471.019, F.S., relating to reinstatement of void licenses, to include a reference to licensed professional structural engineers.

Section 7 of the bill amends s. 471.025(2), F.S., regarding the use of seals on documents, to include a reference to the use of seals when a professional structural engineer's license is revoked or suspended.

Section 8 of the bill amends s. 471.031, F.S., to provide that beginning March 1, 2022, no person may practice professional structural engineering unless the person is licensed as a professional structural engineer or exempt from licensure under ch. 471, F.S. The bill also provides that the following titles may not be used by persons who are not licensed, or otherwise exempt from licensing, under ch. 471, F.S., relating to engineering: licensed engineer, licensed professional engineer, licensed structural engineer, professional structural engineer, registered structural engineer, or structural engineer.

Section 9 of the bill amends s. 471.0033, F.S., related to disciplinary proceedings to revise the acts that constitute grounds for discipline, to include acts related to the practice of professional structural engineering.

Section 10 of the bill amends s. 471.037(1), F.S., related to the construction of provisions in ch. 471, F.S., to provide that local building codes, zoning laws or ordinances may be more restrictive concerning the services of licensed professional structural engineers.

Section 11 of the bill amends s. 471.0385, F.S., related to certain authorizations granted to the Governor. The bill grants authority to the Governor to reestablish positions, budget authority, and salary rate necessary to carry out the DBPR's responsibilities relating to "professional structural engineers," in the event the Florida Engineers Management Corporation Act[16] is held to be unconstitutional or to violate state or federal antitrust laws.

Section 12 of the bill provides an effective date of July 1, 2020.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

[16] *See* s. 471.038, F.S.

C. Trust Funds Restrictions:

None.

D. State Tax or Fee Increases:

The bill amends s. 471.011, F.S., relating to fees for license applications, temporary licenses, license renewals, inactive licenses, examinations, and records, to provide that such fees are also applicable to the regulation of structural engineering.
To the extent the bill imposes fees on licensure of structural engineers while addressing other subjects, the bill may be unconstitutional as a violation the single-subject requirement for the imposition, authorization, or raising of a state tax or fee under Article VII, Section 19 of the Florida Constitution. Under that section, a "state tax or fee imposed, authorized, or raised under this section must be contained in a separate bill that contains no other subject." A "fee" is defined by the Florida Constitution to mean "any charge or payment required by law, including any fee for service, fee or cost for licenses, and charge for service."[17]

E. Other Constitutional Issues:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

Beginning March 1, 2022, persons who are licensed engineers in Florida and those who perform work that comes within the definition in the bill for "professional structural engineering" will be required to obtain additional licensing to perform such work.

C. Government Sector Impact:

The creation of an additional licensing and regulatory structure for professional structural engineers may result in a fiscal impact to the DBPR or the Florida Engineers Management Corporation (FEMC). To date, no analysis by the DBPR or the FEMC of the impact of the bill on their respective operations, revenue, and expenditures has been provided.

VI. Technical Deficiencies:

None.

[17] FLA. CONST. art. VII, s. 19(d)(1).

VII. Related Issues:

None.

VIII. Statutes Affected:

This bill substantially amends the following sections of the Florida Statutes: 471.003, 471.005, 471.011, 471.013, 471.015, 471.019, 471.025, 471.031, 471.033, 471.037, and 471.0385.

IX. Additional Information:

A. Committee Substitute – Statement of Changes:
(Summarizing differences between the Committee Substitute and the prior version of the bill.)

CS by Innovation, Industry, and Technology on January 27, 2020:
The committee substitute includes a conforming amendment recommended by staff to revise certain references to the term "structural engineers" to the term "professional structural engineers."

B. Amendments:

None.