

ENGINEERING AND LAND SURVEYING EXAMINING BOARD[193C]

[Prior to 6/1/88, see Engineering and Land Surveying Examiners, Board of [390]]
[Engineering and Land Surveying Examining Board[193C] created by 1986 Iowa Acts, Ch 1245, §716,
within the Professional Licensing and Regulation Division[193] of the Commerce Department[181] “umbrella”]

CHAPTER 1 ADMINISTRATION

- 1.1(542B) General statement
- 1.2(542B) Definitions
- 1.3(542B) Declaratory orders
- 1.4(542B) Waivers and variances
- 1.5(542B) Licensed professional engineers and building construction

CHAPTER 2 FEES AND CHARGES

- 2.1(542B) General statement
- 2.2(542B) Nonrefundable fees

CHAPTER 3 APPLICATION AND RENEWAL PROCESS

- 3.1(542B) General statement
- 3.2(542B) Examination application components and due dates
- 3.3(542B) Comity applications
- 3.4(542B) Renewal applications
- 3.5(542B) Reinstatement of licensure

CHAPTER 4 ENGINEERING LICENSURE

- 4.1(542B) Requirements for licensure by examination
- 4.2(542B) Requirements for licensure by comity
- 4.3(542B) Requirements for a licensee requesting additional examination

CHAPTER 5 LAND SURVEYING LICENSURE

- 5.1(542B) Requirements for licensure by examination
- 5.2(542B) Requirements for licensure by comity

CHAPTER 6 SEAL AND CERTIFICATE OF RESPONSIBILITY

- 6.1(542B) Seal and certificate of responsibility

CHAPTER 7 PROFESSIONAL DEVELOPMENT

- 7.1(542B,272C) General statement
- 7.2(542B,272C) Definitions
- 7.3(542B,272C) Professional development hours
- 7.4(542B,272C) Professional development guidelines
- 7.5(542B,272C) Biennial requirement
- 7.6(542B,272C) Exemptions
- 7.7(542B,272C) Hardships or extenuating circumstances
- 7.8(542B,272C) Reports, records, and compliance review

CHAPTER 8
PROFESSIONAL CONDUCT OF LICENSEES

- 8.1(542B) General statement
- 8.2(542B) Code of professional conduct
- 8.3(542B) Reporting of acts or omissions
- 8.4(542B) Standards of integrity
- 8.5(542B) Engineering and land surveying services offered by business entities

CHAPTER 9
COMPLAINTS, INVESTIGATIONS AND DISCIPLINARY ACTION

- 9.1(542B) Complaints and investigations
- 9.2(542B) Ruling on the initial inquiry
- 9.3(542B) Reprimands, probation, license suspension or license revocation
- 9.4(542B) Disciplinary findings and sanctions
- 9.5(272C) Civil penalties
- 9.6(542B) Publication of decisions
- 9.7(542B) Disputes between licensees and clients
- 9.8(272C,542) Confidentiality of complaint and investigative information

CHAPTER 10
PEER REVIEW

- 10.1(542B,272C) Peer review committee (PRC)
- 10.2(542B,272C) Reports
- 10.3(542B,272C) Confidentiality
- 10.4(542B,272C) Testimony

CHAPTER 11
MINIMUM STANDARDS FOR PROPERTY SURVEYS

- 11.1(542B) Scope
- 11.2(542B) Definitions
- 11.3(542B) Boundary location
- 11.4(542B) Descriptions
- 11.5(542B) Plats
- 11.6(542B) Measurements
- 11.7(542B) Monuments

CHAPTER 12
MINIMUM STANDARDS FOR U.S. PUBLIC LAND SURVEY
CORNER CERTIFICATES

- 12.1(542B) General statement
- 12.2(355) U.S. Public Land Survey Corner Certificate

CHAPTER 13
CIVIL PENALTIES FOR UNLICENSED PRACTICE

- 13.1(542B) General statement

CHAPTER 1 ADMINISTRATION

IAC Supp. 8/14/85

[Rules 1.5 to 1.13 were either rescinded or renumbered and new rules added, see IAB 8/14/85]

[Prior to 6/1/88, see Engineering and Land Surveying Examiners, Board of [390] Ch 1]

[Rules 1.10 to 1.29 were amended and transferred to 193C—Chapter 4, IAC Supplement 11/27/91]

193C—1.1(542B) General statement. The practices of engineering and land surveying affect the life, health, and property of the people in Iowa. The engineering and land surveying examining board's principal mandate is the protection of the public interest.

1.1(1) Administration. Administration of the board has not been separated into panels, divisions, or departments. While the expertise of a board member may be called upon to frame special examinations and evaluate applications for licensing in a specialized engineering branch, the board functions in a unified capacity on all matters that may come before it. The board maintains an office at 1920 S.E. Hulsizer Road, Ankeny, Iowa 50021, and requests or submissions may be directed to the secretary of the board at that location.

1.1(2) Meetings. Regular meetings of the board are held in Ankeny, Iowa. Information concerning the location and dates for meetings may be obtained from the board's office at 1920 S.E. Hulsizer Road, Ankeny, Iowa 50021, or by telephoning (515)281-4126.

1.1(3) Examinations. The board currently administers licensing examinations twice each year. Information concerning the location and dates for examinations may be obtained from the board's office at the address provided in 1.1(2).

193C—1.2(542B) Definitions. For the purposes of these rules, the following definitions shall apply:

"Accredited" means a program accredited by the Accreditation Board for Engineering Technology, Inc. (ABET) or the Canadian Engineering Accreditation Board (CEAB) or another accrediting body accepted by the National Council of Examiners for Engineering and Surveying (NCEES).

"Board" means the engineering and land surveying examining board provided by chapter 542B of the Iowa Code.

"Design coordination," as used in the definition of the practice of engineering, includes the review and coordination of technical submissions prepared by others including, as appropriate and without limitation, consulting engineers, architects, landscape architects, land surveyors, and other professionals working under the direction of the engineer.

"Engineering documents" includes all plans, specifications, drawings, and reports (including supporting calculations), if the preparation of such documents constitutes or requires the practice of engineering.

"Engineering survey," as used in the definition of the practice of engineering, includes all survey activities required to support the sound conception, planning, design, construction, maintenance, and operation of engineered projects, but excludes the survey of real property for the establishment of land boundaries, rights-of-way, easements, and the dependent or independent surveys or resurveys of the public land system.

"Engineer intern" means a person who passes an examination in the fundamental engineering subjects, but does not entitle the person to claim to be a professional engineer.

"In responsible charge" means having direct control of and personal supervision over any land surveying work or work involving the practice of engineering. One or more persons, jointly or severally, may be in responsible charge.

"Land surveying documents" includes all plats, maps, surveys, and reports, if the preparation thereof constitutes or requires the practice of land surveying.

"Land surveyor" means a person who engages in the practice of land surveying as defined in this rule.

"Practice of engineering" 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.

1. Engineering services include:
 - Consultation, investigation, evaluation, planning, and design;
 - Design coordination of engineering works and systems;
 - Planning the use of natural resources such as land, water and air;
 - Performing engineering surveys, calculations, and studies; and
 - Review of construction for the purpose of monitoring compliance with drawings and specifications.
2. The practice of engineering includes:
 - Such services or creative work as listed above, either public or private, in connection with any utilities, structures, buildings, machines, equipment, processes, work systems, projects, and industrial or consumer products of a mechanical, electrical, hydraulic, pneumatic, or thermal nature insofar as they involve safeguarding life, health, or property;
 - Such other professional services as may be necessary to the planning, progress, and completion of the services identified in this definition;
 - Environmental engineering activities which may be involved in developing plans, reports, or actions to remediate an environmentally hazardous site;
 - Design of fixturing devices for manufacturing machinery that must be performed by a licensed professional engineer or under the responsible charge and direct supervision of a professional engineer unless performed within the industrial exemption by a full-time employee of a corporation which constructs the fixtures.
3. Activities that the board will construe as the practice of engineering for which the board may by order impose a civil penalty upon a person who is not licensed as a professional engineer are set out in Iowa Code section 542B.27.

“Practice of land surveying” includes providing professional services such as consultation, investigation, testimony, evaluation, planning, mapping, assembling, and interpreting reliable scientific measurements and information relative to the location of property lines or boundaries and the utilization, development, and interpretation of these facts into an orderly survey, plat, or map.

1. The practice of land surveying includes, but is not limited to, the following:
 - Locating, relocating, establishing, reestablishing, setting, or resetting of permanent monumentation for any property line or boundary of any tract or parcel of land. Setting permanent monuments constitutes an improvement to real property.
 - Making any survey for the division or subdivision of any tract or parcel of land.
 - Determination, by the use of the principles of land surveying, of the position for any permanent survey monument or reference point, or setting, resetting, or replacing any survey monument or reference point excluding the responsibility of engineers pursuant to Iowa Code section 314.8.
 - Creating and writing metes and bounds descriptions as defined in Iowa Code section 354.2.
 - Geodetic surveying for determination of the size and shape of the earth both horizontally and vertically for the precise positioning of permanent land survey monuments on the earth utilizing angular and linear measurements through spatially oriented spherical geometry.
 - Creation, preparation, or modification of electronic or computerized data, including land information systems and geographical information systems, relative to the performance of the activities listed above.
2. Activities that the board will construe as the practice of land surveying and for which the board may by order impose a civil penalty upon a person who is not licensed as a land surveyor are set out in Iowa Code section 542B.27.

“Professional engineer” means a person, who, by reason of the person’s knowledge of mathematics, the physical sciences, and the principles of engineering, acquired by professional education or practical experience, is qualified to engage in the practice of engineering.

193C—1.3(542B) Declaratory orders. The board’s rules regarding declaratory orders can be found in the uniform rules for the division of professional licensing and regulation at 193 IAC 10.

193C—1.4(542B) Waivers and variances.

1.4(1) The board's rules regarding waivers and variances can be found in the uniform rules for the division of professional licensing and regulation at 193 IAC 5.

1.4(2) Interim rulings. The board chairperson, or vice chairperson if the chairperson is not available, may rule on a petition for waiver or variance when it would not be timely to wait for the next regularly scheduled board meeting for a ruling from the board.

a. The executive secretary shall, upon receipt of a petition meeting all applicable criteria established in 193 IAC 5, present the request to the board chairperson or vice chairperson along with all pertinent information regarding established precedent for granting or denying such requests.

b. The chairperson or vice chairperson shall reserve the right to hold an electronic meeting of the board when:

(1) Board precedent does not clearly resolve the request and the input of the board is deemed required; and

(2) The practical result of waiting until the next regularly scheduled meeting would be a denial of the request due to timing issues.

c. A waiver report shall be placed on the agenda of the next regularly scheduled board meeting and recorded in the minutes of the meeting.

d. This subrule on interim rulings does not apply if the waiver or variance was filed in a contested case.

193C—1.5(542B) Licensed professional engineers and building construction.

1.5(1) *Purpose.* This rule is intended to provide guidance to licensed professional engineers, other design professionals, unlicensed persons engaged in various aspects of building construction, building officials, owners, and others on when the services of a licensed professional engineer are required or may not be required in connection with new building construction and alterations to existing structures.

1.5(2) *General guidelines.* Given the wide range of buildings covered by this rule and the unique issues which may arise with respect to specific buildings, it is not possible to establish definitive criteria which will universally resolve when building construction or alterations will or will not implicate the practice of professional engineering, as defined in Iowa Code sections 542B.2(8) and 542B.27(1). For example, while the construction of a single-family residence would not generally require the services of a licensed professional engineer, unique or unconventional features of a particular site or design may necessitate complex structural calculations or other services which fall within the definition of professional engineering. As a result, this rule should be interpreted as providing only general guidelines on when a licensed professional engineer is required or may not be required.

1.5(3) *Applicability.* The board will consider the guidelines provided in this rule when enforcing Iowa Code chapter 542B, including when determining whether an unlicensed person has engaged in the practice of professional engineering. This rule is not intended to constrain building officials or other public officials in their enforcement of other laws, rules, regulations or ordinances. A building code official, for example, may require that certain documents be prepared by a licensed professional engineer or that certain construction inspections be performed by a licensed professional engineer whether or not the guidelines in this rule would so require. This rule only addresses the practice of professional engineering and does not address the practice of architecture. Similar guidelines with respect to the practice of architecture may be found at 193B—Chapter 5.

1.5(4) *Definitions.* The definitions set forth in 193B—5.1(544A) shall apply to this rule.

1.5(5) *Guidelines for new construction.* The following matrix describes by building type and use when the services of a licensed professional engineer are required or may not be required in connection with new building construction:

BUILDINGS NEW CONSTRUCTION			
Building Use Type	Description	Engineer Required	Engineer May Not Be Required
Agricultural Use	Facilities for private use only and individually owned and operated facilities including grain elevators and feed mills		X
	Corporate-owned facilities or publicly owned facilities including grain elevators and feed mills	X	
Churches and accessory buildings whether attached or separate	One or two stories in height, up to a maximum of 2,000 square feet in gross floor area		X
	Any number of stories in height, greater than 2,000 square feet in gross floor area	X	
	More than two stories in height	X	
Commercial Use	One story in height, up to a maximum of 10,000 square feet in gross floor area		X
	One story in height, greater than 10,000 square feet in gross floor area	X	
	Two stories in height, up to a maximum of 6,000 square feet in gross floor area		X
	Two stories in height, greater than 6,000 square feet in gross floor area	X	
	More than two stories in height	X	
Detached Residential Use	One, two or three stories in height, containing 12 or fewer family dwelling units		X
	More than 12 family dwelling units	X	
	More than three stories in height	X	
	Outbuildings in connection with detached residential buildings		X
Educational Use		X	
Governmental Use	When the occupancy is of another building use type listed herein, those provisions shall apply	X	
Industrial Use		X	
Institutional Use		X	
Light Industrial Use			X
Places of assembly		X	
Warehouse Use	One story in height, up to a maximum of 10,000 square feet in gross floor area		X
	One story in height, greater than 10,000 square feet in gross floor area	X	
	More than one story in height	X	
Factory-Built Buildings	One or two stories in height, up to a maximum of 20,000 square feet in gross floor area		X
	One or two stories in height, greater than 20,000 square feet in gross floor area	X	
	More than two stories in height	X	
	More than 20,000 square feet in gross floor area	X	

1.5(6) *Guidelines for alterations to existing buildings.* The following matrix describes by alteration type when the services of a licensed professional engineer are required or may not be required in connection with alterations to existing buildings:

ALTERATIONS TO EXISTING BUILDINGS				
Alteration Type	Description	Engineer Required	Engineer May Not Be Required	
Structural alterations to exempt buildings under Iowa Code section 544A.18	Modifications which change the structural members, means of egress, handicap accessible path, fire resistivity or other life safety concerns		X	
Structural alterations to buildings that are not exempt	Modifications which change the structural members, means of egress, handicap accessible path, fire resistivity or other life safety concerns	X		
Nonstructural alteration	Which does not modify means of egress, handicap accessible path, fire resistivity or other life safety concerns		X	
	Which maintains the previous type of use		X	
Nonstructural alteration which changes the use of the building from any other use to:	A place of assembly of people or public gathering	X		
	Governmental use	X		
	Educational use	X		
	Hazardous use	X		
	A place of residence exempted	and is one, two or three stories in height and contains not more than 12 family dwelling units		X
	A place of residence not exempted otherwise	and is more than three stories in height and containing more than 12 family dwelling units	X X	
Nonstructural alterations which change the use of the building from industrial or warehouse to:	Commercial or office use	and is one story in height and not greater than a maximum of 10,000 square feet in gross floor area	X	
		and is one story in height and greater than 10,000 square feet in gross floor area	X	
		and is two stories in height and not greater than a maximum of 6,000 square feet in gross floor area		X
		and is two stories in height and greater than 6,000 square feet in gross floor area	X	
		and is more than two stories in height	X	
		and is greater than 10,000 square feet of gross floor area	X	
Nonstructural alterations to:	Agricultural Use	Including grain elevators and feed mills	X	
	Churches and Accessory Building Uses	One or two stories in height, up to a maximum of 2,000 square feet in gross floor area	X	

		Any number of stories in height, greater than 2,000 square feet in gross floor area	X	
		More than two stories in height	X	
Commercial Use		One story in height, up to a maximum of 10,000 square feet in gross floor area		X
		One story in height, greater than 10,000 square feet in gross floor area	X	
		Two stories in height, up to a maximum of 6,000 square feet in gross floor area		X
		Two stories in height, greater than 6,000 square feet in gross floor area	X	
		More than two stories in height	X	
Detached Residential Buildings		One, two or three stories in height, containing 12 or fewer family dwelling units		X
		More than 12 family dwelling units	X	
		More than three stories in height	X	
		Outbuildings in connection with detached residential buildings		X
Educational Use		X		
Governmental Use	When the occupancy is of another building use type listed herein, those provisions shall apply	X		
Industrial Use		X		
Institutional Use		X		
Light Industrial Use			X	
Places of Assembly		X		
Warehouse Use		One story in height, up to a maximum of 10,000 square feet in gross floor area		X
		One story in height, greater than 10,000 square feet in gross floor area	X	
		More than one story in height	X	
Factory-Built Buildings		One or two stories in height, up to a maximum of 20,000 square feet of gross floor area		X
		One or two stories in height, greater than 20,000 square feet in gross floor area	X	
		More than two stories in height	X	
		More than 20,000 square feet in gross floor area	X	

1.5(7) Architectural exceptions do not apply. The statutory exemptions in Iowa Code section 544A.18 do not apply to the practice of engineering. The construction of a building that falls within an exception in Iowa Code section 544A.18 may require the services of an engineer if, for example: (a) there are structural elements which do not fall within building code definitions of conventional light frame construction, (b) the use of certain structural materials, members or components requires special inspections by engineers, or (c) HVAC, plumbing or electrical systems exceed certain building code

standards. However, the matrix guidelines in this rule are generally compatible with the exceptions in Iowa Code section 544A.18 because the construction of buildings that fall outside the exceptions in Iowa Code section 544A.18 generally does implicate the practice of professional engineering in such disciplines as structural, electrical or mechanical engineering. The construction of buildings that fall within one of the exceptions described in Iowa Code section 544A.18 would not typically require the services of a licensed professional engineer, but may require those services in specific circumstances.

These rules are intended to implement Iowa Code sections 17A.9A, 542B.2 and 542B.3.

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CHAPTER 2
FEES AND CHARGES
[Prior to 11/14/01, see 193C—1.9(542B)]

193C—2.1(542B) General statement. Fees are fixed in such an amount as will defray the expense of administering board responsibilities. Fees are charged in accordance with the following table:

Type of fee	Amount
Renewal	
Active license renewal	\$100
Inactive license renewal	\$40
Reinstatement of lapsed license (In addition to the reinstatement fee, the applicant for reinstatement must also pay the appropriate prorated reinstated license fee below.)	\$100
Reinstatement of inactive to active license	\$60
New or reinstated license (In addition to the appropriate prorated reinstated license fee, the applicant for reinstatement must also pay the reinstatement fee above.)	\$100 Prorated at six-month intervals
Application for examinations	
Fundamentals of Engineering	\$25
Fundamentals of Land Surveying	\$30
Principles and Practice of Engineering	\$45
Principles and Practice of Land Surveying	\$45
Examinations	
Fees for NCEES examinations are paid directly to the examination service at the rate established by contract based upon cost of the examination materials and processing expenses.	Variable
Iowa State Specific Land Surveying Examination	\$30
Application for licensure by comity as a professional engineer or land surveyor	\$150
Certificates	
Initial professional engineer or land surveyor certificate	\$15
Additional or duplicate certificate	\$25
Engineer or land surveyor intern certificate	No charge
Check returned for insufficient funds	\$15
Verification of records for lapsed licensees	\$15 per verification
Late renewal fee (for renewals postmarked after December 31 and before February 1)	\$25

193C—2.2(542B) Nonrefundable fees. Application fees submitted with applications for the Fundamentals of Engineering examination, the Fundamentals of Land Surveying examination, the Principles and Practice of Engineering examination, the Principles and Practice of Land Surveying examination, comity licensure, or for renewal of licensure are not refundable for any reason.

These rules are intended to implement Iowa Code sections 542B.13, 542B.15, 542B.20 and 542B.30.

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CHAPTER 3
APPLICATION AND RENEWAL PROCESS

[Prior to 11/14/01, see 193C—Chapter 1]

193C—3.1(542B) General statement. A person requesting to be licensed as a professional engineer or land surveyor shall submit a completed, standardized, notarized application form, which may be obtained from the board's office or electronically from the board's Internet Web page.

3.1(1) *Application expiration.* On the examination application due date, the examination application is considered current if it has been one year or less since it was signed and notarized. A comity application expires one year from the date that it was signed and notarized.

3.1(2) *Branch licensure.* A list of engineering branches in which licensure is granted can be obtained from the board's office. Branches conform to those branches generally included in collegiate curricula. An applicant for licensure in Iowa shall be licensed first in the branch or branches indicated by the applicant's education and experience. A minimum of 50 percent of the required practical experience in which the individual is to be examined shall have been in that same branch of engineering.

3.1(3) *Academic transcripts.* Completion of post-high school education shall be evidenced by receipt of an applicant's transcripts directly from the office of the registrar of each institution attended. Transcripts from institutions located outside the boundaries of the United States of America shall be evaluated for authenticity and substantial equivalency with Accreditation Board for Engineering and Technology, Inc. (ABET)/Engineering Accreditation Commission (EAC) accredited engineering programs. To be readily acceptable, such evaluations shall be from the Center for Professional Engineering Education Services (CPEES). However, the board may accept evaluations from other recognized foreign credential evaluators satisfactorily to the board. The evaluation is at the expense of the applicant.

193C—3.2(542B) Examination application components and due dates.

3.2(1) *Fundamentals of Engineering examination application components and due dates.* Applications for the Fundamentals of Engineering examination are submitted directly to the examination service selected by the board to administer the examinations and must be received on or before September 1 of each year for the examination given in the fall and on or before March 1 of each year for the examination given in the spring. Applications from the following applicants are submitted on forms provided by the examination service: any applicant who has an ABET/EAC or Canadian Engineering Accreditation Board (CEAB) accredited engineering degree; any applicant who is enrolled as a senior student in an ABET/EAC or CEAB accredited engineering curriculum; or any applicant who has a master's degree in engineering from an institution in the United States with an accredited bachelor's degree in the same curriculum. Applicants who do not meet the criteria above must submit an application for approval to the board on forms provided by the board. The components of this application include: the completed, notarized application form; references; and transcripts.

3.2(2) *Fundamentals of Land Surveying examination application components and due dates.* The components of this application include: the completed, notarized application form; references pursuant to 193C—paragraph 5.1(5)“b”; and transcripts. Fundamentals of Land Surveying examination applications require a detailed review and must, therefore, be submitted to the board office, postmarked on or before July 15 of each year for the examination given in the fall and on or before January 15 of each year for the examination given in the spring.

3.2(3) *Principles and Practice examination application components and due dates.* The components of the application for the Principles and Practice of Engineering and the Principles and Practice of Land Surveying examinations include: the completed, notarized application form; the ethics questionnaire; references; transcripts; verification of examination records; and the project statement. Principles and Practice of Engineering and Principles and Practice of Land Surveying examination applications require a detailed review and must, therefore, be submitted to the board office, postmarked on or before July 15 of each year for the examination given in the fall and on or before January 15 of each year for the examination given in the spring.

193C—3.3(542B) Comity applications.

3.3(1) The components of a comity application include: the completed, notarized application form; the ethics questionnaire; references; transcripts; and verifications, as appropriate. Comity applicants may submit the NCEES record in lieu of providing references, verifications, transcripts, and employment history.

3.3(2) Comity applications will be reviewed and processed as they are completed. Applications that are complete and meet the standard requirements of these rules are processed immediately upon completion and review.

3.3(3) Comity applicants are notified regarding the results of the review of their applications.

3.3(4) Temporary permits. The board does not issue temporary permits. Temporary permits were previously issued to applicants whose applications were reviewed by a board member, who met all requirements, and who were expected to qualify for approval by the full board at the next regularly scheduled board meeting. Since applications that meet these criteria are now routinely processed as they are completed and reviewed, temporary permits are no longer necessary.

193C—3.4(542B) Renewal applications.

3.4(1) *Expiration dates.* Certificates of licensure expire biennially on December 31. Certificates that were initially issued in even-numbered years expire in odd-numbered years and certificates that were initially issued in odd-numbered years expire in even-numbered years. In order to maintain authorization to practice engineering or land surveying in Iowa, licensees are required to renew their certificates of licensure on or prior to the expiration date. A licensee who fails to renew prior to the date the certificate expires shall not be authorized to practice in Iowa unless the certificate is reinstated as provided in these rules. However, the board will accept an otherwise sufficient renewal application which is untimely if the board receives the application and late fee within 30 days of the date of expiration.

3.4(2) *Renewal notification.* The board typically mails a renewal notification to a licensee's last-known address at least one month prior to the license expiration date. Neither the board's failure to mail a renewal notification nor the licensee's failure to receive a renewal notification shall affect in any way the licensee's duty to timely renew if the licensee intends to continue practicing in Iowa. Licensees need to contact the board office if they do not receive a renewal notification prior to the expiration date.

3.4(3) *Renewal process.* Upon receipt of a timely and sufficient renewal application, with the proper fee, the board's executive secretary shall issue a new license reflecting the next expiration date, unless grounds exist for denial of the application.

3.4(4) *Notification of expiration.* The board shall notify licensees whose certificates of licensure have expired. This notification may be provided through publication in the division's newsletter. The failure of the board to provide this courtesy notification, or the failure of the licensee to receive the courtesy notification, shall not extend the date of expiration.

3.4(5) *Sanction for practicing after license expiration.* A licensee who continues to practice in Iowa after the license has expired shall be subject to disciplinary action. Such unauthorized activity may also provide grounds to deny a licensee's application to reinstate.

3.4(6) *Timely and sufficient renewal application.* Within the meaning of Iowa Code section 17A.18(2), a timely and sufficient renewal application shall be:

- a. Received by the board in paper or electronic form, or postmarked with a nonmetered United States Postal Service postmark on or before the expiration date of the certificate;
- b. Fully completed; and
- c. Accompanied by the proper fee. The fee shall be deemed improper if, for instance, the amount is incorrect, the fee was not included with the application, the credit card number provided by the applicant is incorrect, the date of expiration of a credit card is left off the application or is incorrect, the attempted credit card transaction is rejected, or the applicant's check is returned for insufficient funds.

3.4(7) *Responsibility for accuracy of renewal application.* The licensee is responsible for verifying the accuracy of the information submitted on the renewal application regardless of how the application is submitted or by whom it is submitted. For instance, if the office manager of a licensee's firm submits

an application for renewal on behalf of the licensee and that information is incorrect, the licensee will be held responsible for the information and may be subject to disciplinary action.

3.4(8) Denial of renewal application. If the board, upon receipt of a timely, complete and sufficient application to renew a certificate of licensure, accompanied by the proper fee, denies the application, the executive secretary shall send written notice to the applicant by restricted, certified mail, return receipt requested, identifying the basis for denial. Grounds may exist to deny an application to renew a license if, for instance, the licensee has failed to satisfy the continuing education required as a condition for licensure. If the basis for the denial is a pending disciplinary action or a disciplinary investigation which is reasonably expected to culminate in a formal disciplinary action, the board shall utilize the procedures applicable to disciplinary actions, including the initiation of a contested case. If the basis for denial is not related to a pending or imminent disciplinary action, the applicant may contest the board's decision as provided in 193—7.40(546,272C).

3.4(9) Continuing education requirement. A licensee who does not satisfy the continuing education requirements for licensure renewal will be denied renewal of licensure in accordance with subrule 3.4(8).

3.4(10) Consent order option. When a licensee appears to be in violation of mandatory continuing education requirements of 193C IAC 7, the board may, in lieu of proceeding to a contested case hearing on the denial of renewal as provided in uniform division rule 193 IAC 7.40(546,272C), offer the licensee the opportunity to sign a consent order. While the terms of a consent order will be tailored to the specific circumstances at issue, the consent order will typically impose a penalty between \$50 and \$250, depending on the severity of the violation, and establish deadlines for compliance, and the consent order may impose additional educational requirements upon the licensee. A licensee is free to accept or reject the offer. If the offer of settlement is accepted, the licensee will be issued a renewed certificate of licensure and, if the terms of the consent order are not complied with, will be subject to disciplinary action. If the offer of settlement is rejected, the matter will be set for hearing, if timely requested by the applicant pursuant to uniform division rule 193 IAC 7.40(546,272C).

3.4(11) Inactive status. Licensees who are not engaged in engineering or land surveying practices that require licensure in Iowa may be granted inactive status. No inactive licensee may practice in Iowa unless otherwise exempted in Iowa Code chapter 542B.

193C—3.5(542B) Reinstatement of licensure.

3.5(1) To reinstate a license that has lapsed for one year or more, the applicant for reinstatement must pay the fee required by 193C IAC 2.1(542B) and must satisfy one of the following requirements:

a. Provide documentation of 45 professional development hours achieved within the current and previous biennium (dual licensees must provide documentation of 30 professional development hours for each profession); or

b. Successfully complete the principles and practice examination within one year immediately prior to application for reinstatement; or

c. For an applicant for reinstatement who is an out-of-state resident, submit a statement from the resident state's licensing board as documented evidence of compliance with the resident state's mandatory continuing education requirement during the period that the licensee's Iowa license was lapsed. The statement shall bear the seal of the licensing board. An applicant for reinstatement whose resident state has no mandatory continuing education requirement shall comply with the documented evidence requirement as outlined in this subrule and at 193C IAC 7.8(2).

3.5(2) To reinstate a license that has lapsed for less than one year, the applicant for reinstatement must pay the fee required by 193C IAC 2.1(542B) and must satisfy one of the following requirements:

a. Provide documentation of 30 professional development hours achieved within the current and previous biennium (dual licensees must provide documentation of 20 professional development hours for each profession); or

b. Successfully complete the principles and practice examination within one year immediately prior to application for reinstatement; or

c. For an applicant for reinstatement who is an out-of-state resident, submit a statement from the resident state's licensing board as documented evidence of compliance with the resident state's

mandatory continuing education requirement during the period that the licensee's Iowa license was lapsed. The statement shall bear the seal of the licensing board. An applicant for reinstatement whose resident state has no mandatory continuing education requirement shall comply with the documented evidence requirement as outlined in this subrule and at 193C IAC 7.8(2).

3.5(3) A lapsed license may not be reinstated to inactive status.

3.5(4) To reinstate from inactive status to active status, the applicant for reinstatement must pay the fee required by 193C IAC 2.1(542B) and must provide documentation of 45 professional development hours achieved within the current and previous biennium (dual licensees must provide documentation of 30 professional development hours for each profession).

These rules are intended to implement Iowa Code sections 542B.2, 542B.6, 542B.13, 542B.14, 542B.15, 542B.20, 542B.30, 272C.2 and 272C.3.

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CHAPTER 4
ENGINEERING LICENSURE
[Prior to 11/14/01, see 193C—1.4(542B)]

193C—4.1(542B) Requirements for licensure by examination. The specific requirements for initial licensing in Iowa are established in Iowa Code section 542B.14, and it is the board's intention to issue initial licensure only when those requirements are satisfied chronologically as set forth in the statute.

4.1(1) First, the applicant for initial licensure in Iowa must satisfy the educational requirements as follows:

a. Graduation from an engineering program of four years or more.

(1) If an applicant did not graduate from an Accreditation Board of Engineering and Technology/Engineering Accreditation Commission (ABET/EAC) or Canadian Engineering Accreditation Board (CEAB) approved curriculum, the applicant must also complete, in addition to the engineering degree, a year of practical experience satisfactory to the board after receiving the engineering degree and prior to taking the Fundamentals of Engineering examination.

(2) An engineering technology curriculum does not constitute an engineering program of four years or more.

b. If an applicant obtained an associate of science degree or a more advanced degree between July 1, 1983, and June 30, 1988, the board shall only require satisfactory completion of a minimum of two years of postsecondary study in mathematics, physical sciences, engineering technology, or engineering at an institution approved by the board and six years of practical experience which, in the opinion of the board, is of satisfactory character to properly prepare the applicant for the Fundamentals of Engineering examination. (Applicants qualifying under this subrule must successfully complete the Fundamentals of Engineering examination by June 30, 2001.)

4.1(2) Second, the applicant must successfully complete the Fundamentals of Engineering examination.

a. An applicant may take the Fundamentals of Engineering examination anytime after the educational requirements as specified above are completed, but the applicant must successfully complete the Fundamental of Engineering examination prior to taking the Principles and Practice of Engineering examination.

b. College seniors studying an ABET/EAC or CEAB approved curriculum may take the Fundamentals of Engineering examination during the final academic year. Applicants will be permitted to take the examination during the testing period which most closely precedes anticipated graduation. However, an official transcript from the applicant's college or university verifying that the applicant graduated must be sent by the registrar to the board office before an applicant's examination results will be released.

c. An applicant who graduated from a satisfactory engineering program and has 25 years or more of work experience satisfactory to the board shall not be required to take the Fundamentals of Engineering examination.

d. An applicant who has earned a Doctor of Philosophy degree from an institution in the United States of America with an accredited Bachelor of Science engineering degree program in the same discipline, or a similar doctoral degree in a discipline approved by the board, shall not be required to take the Fundamentals of Engineering examination.

4.1(3) Third, the applicant must successfully complete the Principles and Practice of Engineering examination.

a. To qualify to take this examination, the applicant must present a record of four years or more of practical experience in engineering work which is of a character satisfactory to the board. This experience must have been obtained after the receipt of the qualifying education and prior to the application due date for the examination.

b. An applicant for the Principles and Practice of Engineering examination shall have a minimum of one year of practical experience in the United States of America or a territory under its jurisdiction.

4.1(4) Work project description. An applicant for initial licensure as a professional engineer must include with the application a statement of approximately 200 words describing a significant project on which the applicant worked closely during the previous 12 months. The statement shall describe the applicant's degree of responsibility for the project and shall identify the project's owner and its location. The statement shall be signed and dated. Criteria the board shall use in evaluating the acceptability of the project as qualifying experience for the applicant shall include, but not be limited to, the following:

- a. The degree to which the project and the experience described have progressed from assignments typical of initial assignments to those more nearly expected of a licensed professional;
- b. The scope and quality of the professional tutelage experienced by the applicant;
- c. The technical decisions required of the applicant in the project; and
- d. The professional decisions required of the applicant.

The board reserves the right to contact the employer and the person providing tutelage on the project for information about the project experience presented to the applicant.

4.1(5) References. References are required for any applicant that must meet an experience requirement prior to taking an examination.

a. An applicant for the Principles and Practice of Engineering examination shall submit five references on forms provided by the board.

(1) At least three of the five references shall be from licensed professional engineers.

(2) If the applicant has had more than one supervisor, at least two of the references shall be from a supervisor of the applicant.

(3) If an applicant has had professional experience under more than one employer, the applicant shall provide references from individuals with knowledge of the work performed under a minimum of two employers.

(4) The board reserves the right to contact employers for information about the applicant's professional experience and competence or to request additional references.

b. An applicant for the Fundamentals of Engineering examination whose engineering degree is not from an ABET/EAC or CEAB accredited engineering program must provide a reference from a supervisor on a form provided by the board.

4.1(6) Education and experience requirements. The board will require the minimum number of years set forth on the following chart before an applicant will be permitted to take either the Fundamentals of Engineering or the Principles and Practice of Engineering examination. Column 1 indicates the years of practical experience required prior to the Fundamentals of Engineering examination in addition to the completion of the required educational level. To determine the total years of practical experience required prior to taking the Principles and Practice of Engineering examination, column 2 is added to column 1.

EXPERIENCE REQUIREMENTS FOR EXAMINATION APPLICANTS		
	1	2*
If the applicant's educational level is:	The applicant must have the following additional years of experience prior to taking the Fundamentals of Engineering examination:	The applicant must have the following years of experience after receipt of the qualifying degree and prior to taking the Principles and Practice of Engineering examination:
A 4-year bachelor's degree in an accredited engineering program	0	4
A 4-year bachelor's degree in mathematics or physical sciences plus a master's degree* in engineering	0	4

EXPERIENCE REQUIREMENTS FOR EXAMINATION APPLICANTS		
If the applicant's educational level is:	1 The applicant must have the following additional years of experience prior to taking the Fundamentals of Engineering examination:	2* The applicant must have the following years of experience after receipt of the qualifying degree and prior to taking the Principles and Practice of Engineering examination:
A 4-year bachelor's degree in technology or architecture plus a master's degree* in engineering	0	4
A 4-year bachelor's degree in engineering from a nonaccredited engineering program	1	4
A 4-year bachelor's degree in engineering from a nonaccredited engineering program plus a master's degree* in engineering	0	4

*For purposes of this subrule, an applicant's master's degree in engineering must be from an institution in the United States of America with an accredited bachelor's degree in the same curriculum, and the master's degree candidate must be required to fulfill the requirements for the bachelor's degree in the same area of specialization.

4.1(7) Practical experience requirements. Practical engineering experience is required prior to licensing. The purpose of this requirement is to ensure that the applicant has acquired the professional judgment, capacity and competence to design engineering works, structures, and systems. The following criteria will be considered by the board in determining whether an applicant's experience satisfies the statutory requirements.

a. Quality. Experience shall be of such quality as to demonstrate that the applicant has developed technical skill and initiative in the correct application of engineering principles. Such experience should demonstrate the capacity to review the applications of these principles by others and to assume responsibility for engineering work of professional character. To be readily acceptable, an applicant's experience shall be under the tutelage of a professional engineer. However, an applicant who is an engineer intern and whose tutelage or portion of tutelage has not been under a licensed professional engineer must submit a cover letter to the board requesting consideration of such experience along with the application. The applicant shall also submit a letter of reference from the applicant's supervisor(s). The letter of reference shall assess the applicant's performance, development, integrity, and ability to assume responsible charge and shall contain a description of the supervisor's background in education and experience and the nature of the tutelage provided to the applicant. The board may require the applicant to submit additional letters of reference or other evidence of suitable tutelage. The board may require an oral interview with the applicant or other evidence to verify the applicant's knowledge and experience in the principles and practice of engineering. The board may conduct interviews with persons providing tutelage to the applicant.

b. Scope. Experience shall be of sufficient breadth and scope to ensure that the applicant has attained reasonably well-rounded professional competence in a basic engineering field, rather than highly specialized skill in a very narrow and limited field.

c. Progression. The record of experience shall indicate successive and continued progress from initial, subprofessional work of simpler character to recent, professional work of greater complexity and a higher degree of responsibility, as well as continued interest and effort on the part of the applicant toward further professional development and advancement. In evaluating this progression, the board will consider both subprofessional and professional activity as reported by the candidate. However, only work experience obtained after receipt of the qualifying degree by the candidate will be considered, except as described in 193C—paragraph 4.1(7) "d." Subprofessional work includes the time spent in drafting, as an engineering technician or engineering assistant or inspector, or in similar work under direct supervision, including work where the personal responsibility and technical knowledge required are small, that is, minor positions in which the responsibility is slight and the individual performance of

a task that has been set and supervised by a supervisor is all that is required. Professional work includes the time during which the applicant was occupied in engineering work of higher grade and responsibility than that defined above as subprofessional work. Time spent in teaching engineering subjects in a college or university at the level of assistant professor or higher may be listed as professional work.

d. Special work experience. Work experience prior to graduation from college may be accepted toward satisfaction of professional experience requirements only as follows: Cooperative work programs administered by engineering colleges and verified on the transcript and internships administered by engineering colleges with a verifying reference from the internship supervisor will be considered as half-time credit, with a maximum allowance of 6 months (12 months of cooperative work experience or internship) applicable toward the satisfaction of professional experience requirements. An applicant's advanced education, military experience, or both will be reviewed in order to determine if they are applicable toward the statutory requirements for experience.

e. Advanced education. An applicant who has earned a Master of Science degree that includes research experience, in addition to writing an associated thesis, from an institution in the United States of America with an accredited Bachelor of Science engineering degree program in the same discipline and has fulfilled the requirements for a Bachelor of Science degree may be granted a maximum of one-half year's experience credit. An applicant who has earned a Doctor of Philosophy degree from an institution in the United States of America with an accredited Bachelor of Science engineering degree program in the same discipline may be granted a maximum of one year's experience credit in addition to the one-half year for the master's degree.

f. Teaching experience. Teaching of engineering subjects at the level of assistant professor or higher in an accredited engineering program may be considered as experience, provided the applicant's immediate supervisor is a licensed professional engineer in the jurisdiction in which the college or university is located. If the applicant's immediate supervisor is not a licensed professional engineer, a program of mentoring or peer review by a licensed professional engineer acceptable to the board must be demonstrated. Applicants using teaching or research as experience must have a minimum of four years of acceptable experience in research, industry, or consulting. The board shall consider the complexity of the project(s) presented, the degree of responsibility of the applicant within the project, and other factors the board deems relevant. Academic experience must demonstrate increasing levels of responsibility for the conduct and management of projects involving engineering research, development or application. The board reserves the right to contact employers for information about the applicant's professional experience and competence.

g. Joint applications. Applicants requesting licensure both as a professional engineer and a land surveyor must submit a history of professional experience in both fields. Such histories will be considered separately on a case-by-case basis. The board does not grant full credit for concurrent experience in both professions.

4.1(8) Required examinations. All examinations are uniform examinations prepared and graded by the National Council of Examiners for Engineering and Surveying (NCEES). The board may negotiate an agreement with an examination service to administer the examinations to applicants approved by the board, in which case applicants shall pay examination fees directly to the service.

a. Fundamentals of Engineering examination (fundamentals examination). The Fundamentals of Engineering examination is a written, eight-hour examination covering general engineering principles and other subjects commonly taught in accredited engineering programs.

b. Principles and Practice of Engineering examination (professional examination). The Principles and Practice of Engineering examination is a written, eight-hour examination designed to determine proficiency and qualification to engage in the practice of professional engineering only in a specific branch. A separate examination shall be required for each branch in which licensure is granted.

c. Passing scores. The board reviews test results for each examination and determines what level shall constitute a minimum passing score for that examination. In making its determination, the board generally is guided by the passing score recommended by the NCEES. The board fixes the passing score for each examination at a level which it concludes is a reasonable indication of minimally acceptable professional competence.

d. Reexamination. An applicant who fails an examination may request reexamination at the next examination period without reapplication to the board. If the applicant intends to retake the examination, the applicant must notify the examination service selected by the board to administer the examinations prior to the application due date for the examination.

e. Failure to appear. An applicant who fails to appear for an examination may sit for the examination the next time it is offered without reapplication provided the application will not be more than one year old at the time of the application due date for the examination and the applicant notifies the examination service selected by the board to administer the examinations prior to the application due date for the examination.

f. Materials permitted in examination room. For security reasons, applicants shall comply with requirements regarding materials permitted in the examination room as issued by the National Council of Examiners for Engineering and Surveying and provided to candidates prior to the examination.

g. Release of examination results. Results of any examination shall only be reported as pass or fail except that the candidate who fails an examination may be provided with the candidate's converted score and a diagnostic report indicating areas of weakness, as available.

4.1(9) Examination subversion. Any individual who subverts or attempts to subvert the examination process may, at the discretion of the board, have the individual's examination scores declared invalid for the purpose of licensure in Iowa, be barred from engineering licensure and examinations in Iowa, or be subject to the imposition of other sanctions the board deems appropriate.

a. Conduct that subverts or attempts to subvert the examination process includes, but is not limited to:

(1) Conduct that violates the security of the examination materials, such as removing from the examination room any of the examination materials; reproducing or reconstructing any portion of the licensing examination; aiding by any means in the reproduction or reconstruction of any portion of the licensing examination; or selling, distributing, buying, receiving, or having unauthorized possession of any portion of a future, current, or previously administered licensing examination.

(2) Conduct that violates the standards of test administration, such as communicating with any other examination candidate during the administration of the licensing examination; communicating with others outside of the examination site during the administration of the examination; copying answers from another candidate or permitting one's answers to be copied by another candidate during the administration of the examination; or having in one's possession during the administration of the licensing examination any device or materials that might compromise the security of the examination or examination process, such as calculating and computing devices not on the list of devices approved by the examination provider or provided by the examination provider.

(3) Conduct that violates the examination process, such as falsifying or misrepresenting educational credentials or other information required for admission to the licensing examination or impersonating an examination candidate or having an impersonator take the licensing examination on one's behalf.

b. Any examination candidate who wishes to appeal a decision of the board under this subrule may request a contested case hearing. The request for hearing shall be in writing, shall briefly describe the basis for the appeal, and shall be filed in the board's office within 30 days of the date of the board decision that is being appealed. Any hearing requested under this subrule shall be governed by the rules applicable to contested case hearings under 193—Chapter 7.

193C—4.2(542B) Requirements for licensure by comity. A person holding a certificate of licensure to engage in the practice of engineering issued by a proper authority of a jurisdiction or possession of the United States, the District of Columbia, or any foreign country, based on requirements that do not conflict with the provisions of Iowa Code section 542B.14 and who has met standards determined by the board to be substantially equivalent to those required of applicants for initial licensure in this state may, upon application, be licensed without further examination. When determining whether the licensing standards satisfied by a comity applicant are substantially equivalent to those required in Iowa, the board considers each of the four licensing prerequisites in Iowa Code section 542B.14(1) individually. The licensing standards satisfied by the comity applicant must accordingly be equal or superior to those

required in Iowa for education, fundamentals examination, experience, and professional examination. Unless expressly stated in this chapter, the board will not consider an applicant's superior satisfaction of one licensing prerequisite, such as a higher level of education than is required in Iowa, as resolving an applicant's lack of compliance with another prerequisite, such as professional examination. Comity applicants are governed by the same standards as are required of applicants for initial licensure in Iowa.

4.2(1) *References.* An applicant for licensure by comity shall submit three references on forms provided by the board, at least two of which shall be from licensed professional engineers. The board reserves the right to contact employers for information about the applicant's professional experience and competence.

4.2(2) *Basis for evaluation of applications.* Applications for licensure by comity will be evaluated on the following basis:

a. The applicant's record of education, references, practical experience, and successful completion of approved examinations will be reviewed to determine if it currently satisfies the substantive requirements of Iowa Code section 542B.14. In reviewing the education, references, and practical experience of comity applicants, the board will use the same criteria used by the board to determine the eligibility of a candidate for the Principles and Practice of Engineering examination; or

b. The applicant's licensure in a jurisdiction other than Iowa will be reviewed to determine if it was granted only after satisfaction of requirements substantially equivalent to those that are required of applicants for initial licensure in Iowa by Iowa Code section 542B.14.

4.2(3) *Evaluation of comity application process.*

a. First, the applicant for licensure by comity from a jurisdiction other than Iowa must meet or exceed the education requirements set forth in Iowa Code section 542B.14. In addition, if the applicant did not graduate from an Accreditation Board of Engineering and Technology (ABET)/Engineering Accreditation Commission (EAC) or Canadian Engineering Accreditation Board (CEAB) approved curriculum, the applicant must have completed a year of practical experience satisfactory to the board. This year of experience must be in addition to the four years of practical experience in engineering work as required in paragraph 4.2(3) "*d.*"

b. Second, the applicant must have successfully completed the Fundamentals of Engineering examination.

(1) An applicant who graduated from a satisfactory engineering program and who has 25 years or more of work experience satisfactory to the board shall not be required to take the Fundamentals of Engineering examination.

(2) An applicant who has earned a Doctor of Philosophy degree from an institution in the United States of America with an accredited Bachelor of Science engineering degree program in the same discipline, or a similar doctoral degree in a discipline approved by the board, shall not be required to take the Fundamentals of Engineering examination.

c. Third, the applicant must have successfully completed the Principles and Practice of Engineering examination.

d. Fourth, the applicant must have a record of four years or more of practical experience in engineering work which is of a character satisfactory to the board. This experience must have been obtained after the receipt of the appropriate education and must meet the requirements for practical experience found at paragraph 4.1(7) "*a.*"

e. While the board will consider evidence presented by a comity applicant on non-NCEES examinations successfully completed in a foreign country, the non-NCEES examination will be compared with the appropriate NCEES examination. A non-NCEES professional examination, for instance, must be designed to determine whether a candidate is minimally competent to practice professional engineering in a specific branch of engineering, such as civil, structural, electrical, or mechanical engineering. The examination must be written, objectively graded, verifiable, and developed and validated in accordance with the testing standards of the American Psychological Association or equivalent testing standards. Free-form essays and oral interviews, while valuable for certain purposes, are not equal or superior to NCEES examinations for reasons including the subjective nature of such procedures, lack of verifiable grading standards, and heightened risk of inconsistent treatment.

4.2(4) Education and experience requirements.

a. For applicants who were originally licensed in a jurisdiction other than Iowa prior to July 1, 1988, the board will employ the following chart to determine if the applicant's licensure was granted after satisfaction of requirements substantially equivalent to those which were required by Iowa Code section 542B.14 at the time of the applicant's original licensure. Column 1 indicates the years of practical experience that were required prior to the Fundamentals of Engineering examination in addition to the completion of the required educational level. To determine the total years of practical experience that were required prior to taking the Principles and Practice of Engineering examination, column 2 is added to column 1.

EXPERIENCE REQUIREMENTS FOR COMITY APPLICANTS Who were licensed prior to July 1, 1988		
If the applicant's educational level was:	The applicant must have had the following additional years of experience prior to taking the Fundamentals of Engineering examination:	The applicant must have had the following years of experience after receipt of the qualifying degree and prior to taking the Principles and Practice of Engineering examination:
No post-high school education	8	4
Postsecondary study in mathematics or physical sciences		
One year	7	4
Two years	6	4
Three years	5	4
Four years	3	4
Four-year BS degree in mathematics or physical sciences plus master's degree in engineering	0	4
Postsecondary study in engineering technology programs and architecture		
One year	7	4
Two years	5.5	4
Three years	4	4
Four-year degree in a nonaccredited engineering technology program or BA in architecture	2.5	4
Four-year degree in an accredited engineering technology program	2	4
Bachelor of architecture, four years or more	2	4
Four-year degree in engineering technology or architecture plus master's degree in engineering	0	4
Postsecondary study in a nonaccredited engineering program		
One year	7	4
Two years	5	4
Three years	3	4
Four-year BS degree	1	4
Four-year degree in a nonaccredited engineering program plus master's degree in engineering	0	4
Postsecondary study in an accredited engineering program		
Two years	6	4
Three years	3	4
Four-year degree in an accredited engineering program	0	4

b. For applicants who were originally licensed in another jurisdiction and who meet the requirements of Iowa Code section 542B.14(1)(a)(3), the board will employ the following chart to

determine if the applicant's licensure was granted after satisfaction of requirements substantially equivalent to those which were required by Iowa Code section 542B.14 at the time of the applicant's original licensure. Column 1 indicates the years of practical experience that were required prior to the Fundamentals of Engineering examination in addition to the completion of the required educational level. To determine the total years of practical experience that were required prior to taking the Principles and Practice of Engineering examination, column 2 is added to column 1.

EXPERIENCE REQUIREMENTS FOR COMITY APPLICANTS Who meet the requirements of Iowa Code section 542B.14(1)(a)(3)		
If the applicant's educational level was:	The applicant must have had the following additional years of experience prior to taking the Fundamentals of Engineering examination:	The applicant must have had the following years of experience after receipt of the qualifying degree and prior to taking the Principles and Practice of Engineering examination:
College or junior college (mathematics or physical sciences)		
Two years	6	4
Three years	5	4
Four-year BS degree	3	4
Four-year BS degree plus master's degree in engineering	0	4
All engineering technology programs and architecture		
Two years	6	4
Three years	5	4
Four-year degree, nonaccredited technology or BA in architecture	3	4
Four-year degree, accredited technology	2	4
Four-year degree or more, bachelor of architecture	2	4
Four-year BS degree, technology or architecture plus master's degree in engineering	0	4
Engineering program, nonaccredited		
Two years	6	4
Three years	3	4
Four-year BS degree	1	4
Four-year BS degree plus master's degree in engineering	0	4
Engineering program, accredited		
Two years	6	4
Three years	3	4
Four-year BS degree	0	4

c. For all other applicants who were originally licensed in a jurisdiction other than Iowa on or after July 1, 1988, the board will employ the chart found at subrule 4.1(6) to determine if the applicant's licensure was granted after satisfaction of requirements substantially equivalent to those which are required by Iowa Code section 542B.14.

d. For purposes of this subrule, an applicant's master's degree in engineering must be from an institution in the United States of America with an accredited bachelor's degree in the same curriculum, and the master's degree candidate must be required to fulfill the requirements for the bachelor's degree in the same area of specialization.

193C—4.3(542B) Requirements for a licensee requesting additional examination. A person holding an active certificate of licensure to engage in the practice of engineering issued by the state of Iowa may, upon written request and payment of the application and examination fees, take additional examinations in other branches of engineering without submitting a formal application to the board as described for initial or comity licensure.

These rules are intended to implement Iowa Code sections 542B.2, 542B.13, 542B.14, 542B.15, 542B.17 and 542B.20.

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CHAPTER 5
LAND SURVEYING LICENSURE
[Prior to 11/14/01, see 193C—1.4(542B)]

193C—5.1(542B) Requirements for licensure by examination. The specific requirements for initial licensing in Iowa are established in Iowa Code section 542B.14, and it is the board's intention to issue initial licensure only when those requirements are satisfied chronologically as set forth in the statute.

5.1(1) First, the applicant for initial licensure in Iowa must satisfy the education plus experience requirements as follows: graduation from a course of two years or more in mathematics, physical sciences, mapping and surveying, or engineering in a school or college and six years of practical experience, all of which, in the opinion of the board, will properly prepare the applicant for the examination in fundamental land surveying subjects.

a. The six-year experience requirement above may be reduced based upon the number of years of the degree program from which the applicant graduated. Refer to the chart at 5.1(6).

b. Internet or on-line degrees will only be considered as qualifying degrees if the institution issuing the degree is accredited by a recognized accreditation board.

5.1(2) Second, the applicant must successfully complete the Fundamentals of Land Surveying examination.

a. The applicant may take the Fundamentals of Land Surveying examination anytime after the education and experience requirements described above are completed, but the applicant must successfully complete the Fundamentals of Land Surveying examination prior to taking the Principles and Practice of Land Surveying examination.

b. College seniors studying an Accreditation Board of Engineering and Technology (ABET) or Canadian Engineering Accreditation Board (CEAB) approved curriculum may take the Fundamentals of Land Surveying examination during the final academic year; applicants will be permitted to take the examination during the testing period which most closely precedes anticipated graduation. However, an official transcript from the applicant's college or university verifying that the applicant graduated must be sent by the registrar to the board office before an applicant's examination results will be released.

5.1(3) Third, the applicant must successfully complete the Principles and Practice of Land Surveying examination.

a. To qualify to take this examination, the applicant must present a record of four years or more of practical experience in land surveying work which is of a character satisfactory to the board. This experience must have been obtained after the receipt of the qualifying education and prior to the application due date for the examination. This practical experience is in addition to the initial experience required prior to taking the Fundamentals of Land Surveying examination.

b. An applicant for the Principles and Practice of Land Surveying examination shall have a minimum of one year of practical experience in the United States of America or a territory under its jurisdiction.

5.1(4) Work project description. An applicant for initial licensure as a professional land surveyor must include with the application a statement of approximately 200 words describing a significant project on which the applicant worked closely during the last 12 months. The statement shall describe the applicant's degree of responsibility for the project and shall identify the project's owner and its location. The statement shall be signed and dated. Criteria the board shall use in evaluating the acceptability of the project as qualifying experience for the applicant shall include, but not be limited to, the following:

a. The degree to which the project and the experience described has progressed from assignments typical of initial assignments to those more nearly expected of a licensed professional;

b. The scope and quality of the professional tutelage experienced by the applicant;

c. The technical decisions required of the applicant in the project; and

d. The professional decisions required of the applicant.

The board reserves the right to contact the employer and the person providing tutelage on the project for information about the project experience presented to the applicant.

5.1(5) References. References are required for any applicant that must meet an experience requirement prior to taking an examination.

a. An applicant for the Principles and Practice of Land Surveying examination shall submit five references on forms provided by the board.

(1) At least three of the five references shall be from licensed professional land surveyors.

(2) If the applicant has had more than one supervisor, at least two of the references shall be from a supervisor of the applicant.

(3) If an applicant has had professional experience under more than one employer, the applicant shall provide references from individuals with knowledge of the work performed under a minimum of two employers.

(4) The board reserves the right to contact employers for information about the applicant's professional experience and competence or to request additional references.

b. An applicant for the Fundamentals of Land Surveying examination must provide three references on forms provided by the board except that: (1) individuals applying with an ABET/EAC or CEAB accredited engineering or surveying and mapping degree with at least six semester hours of surveying or mapping do not have an experience requirement and, therefore, do not need to provide references; and (2) individuals applying with a non-ABET/EAC four-year surveying and mapping degree must submit only one reference.

5.1(6) Education and experience requirements. The board will require the minimum number of years set forth on the following chart before an applicant will be permitted to take either the Fundamentals of Land Surveying or the Principles and Practice of Land Surveying examination. Column 1 indicates the years of practical experience required prior to the Fundamentals of Land Surveying examination in addition to the completion of the required educational level. To determine the total years of practical experience required prior to taking the Principles and Practice of Land Surveying examination, column 2 is added to column 1.

EXPERIENCE REQUIREMENTS FOR EXAMINATION APPLICANTS		
If the applicant's educational level was:	The applicant must have had the following additional years of experience prior to taking the Fundamentals of Land Surveying examination:	The applicant must have had the following years of experience after receipt of the qualifying degree and prior to taking the Principles and Practice of Land Surveying examination:
A college or technology program with fewer than 6 semester hours of surveying		
Two-year degree	6	4
Four-year degree	4	4
A college or technology program with 6 or more semester hours of surveying		
Two-year degree	6	4
Four-year degree	2	4
Engineering program and 6 semester hours of surveying		
Two-year degree	6	4
Four-year BS degree	0	4
Engineering program with fewer than 6 semester hours of surveying		
Two-year degree	6	4
Four-year BS degree	2	4
Nonaccredited surveying and mapping program		
Two-year degree	6	4
Four-year BS degree	1	4

EXPERIENCE REQUIREMENTS FOR EXAMINATION APPLICANTS		
If the applicant's educational level was:	The applicant must have had the following additional years of experience prior to taking the Fundamentals of Land Surveying examination:	The applicant must have had the following years of experience after receipt of the qualifying degree and prior to taking the Principles and Practice of Land Surveying examination:
Accredited surveying and mapping program		
Two-year degree	6	4
Four-year BS degree	0	4

5.1(7) Practical experience requirements. Practical land surveying experience is required prior to licensing. The purpose of this requirement is to ensure that the applicant has acquired the professional judgment, capacity and competence to determine land boundaries. The following criteria will be considered by the board in determining whether an applicant's experience satisfies the statutory requirements.

a. Quality. Experience shall be of such quality as to demonstrate that the applicant has developed technical skill and initiative in the correct application of surveying principles. Such experience should demonstrate the capacity to review the applications of these principles by others and to assume responsibility for surveying work of a professional character. Up to three years of practical experience obtained after high school graduation and prior to satisfying the education requirement, if under the tutelage of a professional land surveyor, may be accepted toward the additional experience requirement for qualification to take the Fundamentals of Land Surveying examination. A minimum of four years of an applicant's experience after satisfying the education requirement shall be under the tutelage of a professional land surveyor.

b. Scope. Experience shall be of sufficient breadth and scope to ensure that the applicant has attained reasonably well-rounded professional competence in land surveying.

c. Progression. The record of experience shall indicate successive and continued progress from initial work of simpler character to recent work of greater complexity and higher degree of responsibility, as well as continued interest and effort on the part of the applicant toward further professional development and advancement.

d. Advanced education and military experience. An applicant's advanced education, military experience, or both will be reviewed in order to determine if they are applicable toward the statutory requirements for experience.

e. Joint applications. Applicants requesting licensure both as professional engineers and land surveyors must submit a history of professional experience in both fields. Such histories will be considered separately on a case-by-case basis. The board does not grant full credit for concurrent experience in both professions.

5.1(8) Required examinations. The board prepares and grades the Iowa State Specific Land Surveying examination administered to professional land surveyor candidates. All other examinations are uniform examinations prepared and graded by the National Council of Examiners for Engineering and Surveying (NCEES). The board may negotiate an agreement with an examination service to administer the examinations to applicants approved by the board, in which case applicants shall pay examination fees directly to the service.

a. Fundamentals examination. The Fundamentals of Land Surveying examination is a written, eight-hour examination covering general surveying principles.

b. Interview. One or more of the land surveyor members of the board must conduct an interview with each applicant for the professional land surveying examination prior to the examination. This interview is to verify the applicant's knowledge and experience in the principles and practice of land surveying in Iowa. The applicant is required to bring to the oral interview samples of the applicant's work which include surveying plats, subdivision plats, acquisition plats, corner certificates, and

related field notes. The applicant is expected to have knowledge in the following: conduct of original surveys, restoration of obliterated corners, reestablishing of lost corners, retracement work and how to use evidence in restoration of obliterated land lines as well as corners, laws governing riparian rights, accretions, adverse possession, acquiescence, and Iowa laws regarding minimum standards for surveying, platting and corner certification. An applicant will not be permitted to write the examination without successfully verifying experience through the interview process.

c. Professional land surveying examinations. The Principles and Practice of Land Surveying examination consists of two examinations. The first is a six-hour examination designed to determine general proficiency and qualification to engage in the practice of land surveying. The second part is a two-hour Iowa State Specific closed-book examination that is designed to determine an applicant's proficiency and qualification to practice land surveying specifically in Iowa. Each of the two examinations shall be scored separately.

d. Passing scores. The board reviews test results for each examination and determines what level shall constitute a minimum passing score for that examination. In making its determination, the board generally is guided by the passing score recommended by the NCEES. The board fixes the passing score for each examination at a level which it concludes is a reasonable indication of minimally acceptable professional competence.

e. Reexamination. An applicant who fails an examination may request reexamination at the next examination period without reapplication.

(1) If the applicant intends to retake the examination, the applicant must notify the examination service selected by the board to administer the examinations prior to the application due date for the examination.

(2) Applicants failing one or both parts of the professional land surveying examination will be required to retake only the failed portions. An applicant successful in passing one portion of the land surveying examination need not be reexamined for that portion regardless of how much time elapses between the successfully passed portion and any future appearance to retake the failed portion of the examination. A satisfactory score must be obtained on each portion of the examination before the board will grant licensure as a land surveyor.

(3) An applicant for licensure as a land surveyor in Iowa (by comity or examination) that needs to be examined only for the state-specific portion of the professional land surveying examination may take the examination at the board office by appointment in accordance with all other requirements.

f. Failure to appear. An applicant who fails to appear for an examination may sit for the examination the next time it is offered without reapplication provided the application will not be more than one year old at the time of the application due date for the examination and the applicant notifies the board office prior to the application due date for the examination.

g. Materials permitted in examination room. For security reasons, applicants shall comply with requirements regarding materials permitted in the examination room as issued by the National Council of Examiners for Engineering and Surveying and provided to candidates prior to the examination.

h. Release of examination results. Results of any examination shall only be reported as pass or fail except that the candidate who fails an examination may be provided with the candidate's converted score and a diagnostic report indicating areas of weakness, as available.

5.1(9) Examination subversion. Any individual who subverts or attempts to subvert the examination process may, at the discretion of the board, have the individual's examination scores declared invalid for the purpose of licensure in Iowa, be barred from land surveying licensure and examinations in Iowa, or be subject to the imposition of other sanctions the board deems appropriate.

a. Conduct that subverts or attempts to subvert the examination process includes, but is not limited to:

(1) Conduct that violates the security of the examination materials, such as removing from the examination room any of the examination materials; reproducing or reconstructing any portion of the licensing examination; aiding by any means in the reproduction or reconstruction of any portion of the licensing examination; or selling, distributing, buying, receiving, or having unauthorized possession of any portion of a future, current, or previously administered licensing examination.

(2) Conduct that violates the standards of test administration, such as communicating with any other examination candidate during the administration of the licensing examination; communicating with others outside of the examination site during the administration of the examination; copying answers from another candidate or permitting one's answers to be copied by another candidate during the administration of the examination; or having in one's possession during the administration of the licensing examination any device or materials that might compromise the security of the examination or examination process, such as calculating and computing devices not on the list of devices approved by the examination provider or provided by the examination provider.

(3) Conduct that violates the examination process, such as falsifying or misrepresenting educational credentials or other information required for admission to the licensing examination or impersonating an examination candidate or having an impersonator take the licensing examination on one's behalf.

b. Any examination candidate who wishes to appeal a decision of the board under this subrule may request a contested case hearing. The request for hearing shall be in writing, shall briefly describe the basis for the appeal, and shall be filed in the board's office within 30 days of the date of the board decision that is being appealed. Any hearing requested under this subrule shall be governed by the rules applicable to contested case hearings under 193—Chapter 7.

193C—5.2(542B) Requirements for licensure by comity. A person holding a certificate of licensure to engage in the practice of land surveying issued by a proper authority of a jurisdiction or possession of the United States, the District of Columbia, or any foreign country, based on requirements that do not conflict with the provisions of Iowa Code section 542B.14 and of a standard not lower than that specified in the applicable licensure Act in effect in this jurisdiction at the time such certificate was issued may, upon application and successful completion of the Iowa State Specific Land Surveying examination, be licensed without further examination. When determining whether the licensing standards satisfied by a comity applicant at time of foreign licensure are equal or superior to those required in Iowa, the board considers each of the four licensing prerequisites in Iowa Code section 542B.14(1) individually. The licensing standards satisfied by the comity applicant must accordingly have been equal or superior to those required in Iowa for education, fundamentals examination, experience, and professional examination. Unless expressly stated in this chapter, the board will not consider an applicant's superior satisfaction of one licensing prerequisite, such as a higher level of education than is required in Iowa, as resolving an applicant's lack of compliance with another prerequisite, such as professional examination. Comity applicants are governed by the same standards as are required of Iowa applicants.

5.2(1) References. An applicant for licensure by comity shall submit three references on forms provided by the board, at least two of which shall be from licensed professional land surveyors. The board reserves the right to contact employers for information about the applicant's professional experience and competence.

5.2(2) Basis for evaluation of applications. Applications for licensure by comity will be evaluated on the following basis:

a. The applicant's record of education, references, practical experience, and successful completion of approved examinations will be reviewed to determine if it currently satisfies the substantive requirements of Iowa Code section 542B.14. In reviewing the education, references, and practical experience of comity applicants, the board will use the same criteria used by the board to determine the eligibility of a candidate for the Principles and Practice of Land Surveying examination; or

b. The applicant's licensure in a jurisdiction other than Iowa will be reviewed to determine if it was granted only after satisfaction of requirements equal to or more stringent than those that were required by Iowa Code section 542B.14 at the time the applicant was licensed in the other jurisdiction.

5.2(3) Evaluation of comity application process.

a. First, the applicant for licensure by comity from a jurisdiction other than Iowa must have satisfied the education and experience requirements as set forth in Iowa Code section 542B.14 that were in effect at the time that the applicant was licensed initially.

b. Second, the applicant must have successfully completed the Fundamentals of Land Surveying examination. The applicant may take the Fundamentals of Land Surveying examination anytime after the practical experience and educational requirements are completed, but the applicant must successfully complete the Fundamentals of Land Surveying examination prior to taking the Principles and Practice of Land Surveying examination.

c. Third, the applicant must have successfully completed the Principles and Practice of Land Surveying examination. Prior to taking this examination, the applicant shall have had a record of four years or more of practical experience in land surveying which is of a character satisfactory to the board.

d. While the board will consider evidence presented by a comity applicant on non-NCEES examinations successfully completed in a foreign country, the non-NCEES examination will be compared with the appropriate NCEES examination. A non-NCEES professional examination, for instance, must be designed to determine whether a candidate is minimally competent to practice professional land surveying. The examination must be written, objectively graded, verifiable, and developed and validated in accordance with the testing standards of the American Psychological Association or equivalent testing standards. Free-form essays and oral interviews, while valuable for certain purposes, are not equal or superior to NCEES examinations for reasons including the subjective nature of such procedures, lack of verifiable grading standards, and heightened risk of inconsistent treatment.

5.2(4) Education and experience requirements. The board will employ the following chart to determine if the applicant's licensure in a jurisdiction other than Iowa was granted after satisfaction of requirements equal to or more stringent than those that were required by Iowa Code section 542B.14 at the time the applicant was licensed in the other jurisdiction. Column 1 indicates the years of practical experience that were required prior to the Fundamentals of Land Surveying examination in addition to the completion of the required educational level. To determine the total years of practical experience that were required prior to taking the Principles and Practice of Land Surveying examination, column 2 is added to column 1.

EXPERIENCE REQUIREMENTS FOR COMITY APPLICANTS Who were licensed prior to July 1, 1988		
If the applicant's educational level was:	The applicant must have had the following additional years of experience prior to taking the Fundamentals of Land Surveying examination:	The applicant must have had the following years of experience after receipt of the qualifying degree and prior to taking the Principles and Practice of Land Surveying examination:
No post-high school education	8	4
College or technology program with fewer than 6 semester hours of surveying		
One year	7	4
Two years	6	4
Three years	5	4
Four-year degree	4	4
College or technology program with 6 or more semester hours of surveying		
One year	7	4
Two years	5.5	4
Three years	4	4
Four-year degree	2.5	4
Engineering program with 6 semester hours of surveying		
One year	7	4
Two years	5.5	4
Three years	4	4

EXPERIENCE REQUIREMENTS FOR COMITY APPLICANTS Who were licensed prior to July 1, 1988		
If the applicant's educational level was:	The applicant must have had the following additional years of experience prior to taking the Fundamentals of Land Surveying examination:	The applicant must have had the following years of experience after receipt of the qualifying degree and prior to taking the Principles and Practice of Land Surveying examination:
Four-year BS degree	1.5	4
Nonaccredited surveying and mapping program		
One year	7	4
Two years	5	4
Three years	3	4
Four-year BS degree	1	4
Accredited surveying and mapping program		
One year	7	4
Two years	4	4
Three years	2	4
Four-year BS degree	0	4

These rules are intended to implement Iowa Code sections 542B.2, 542B.13, 542B.14, 542B.15 and 542B.20.

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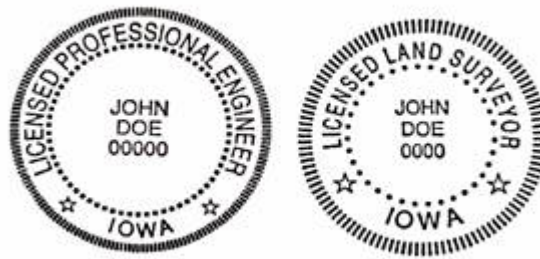
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CHAPTER 6
SEAL AND CERTIFICATE OF RESPONSIBILITY
[Prior to 11/14/01, see 193C—1.30(542B)]

193C—6.1(542B) Seal and certificate of responsibility.

6.1(1) Each licensee shall procure a seal with which to identify all engineering and land surveying documents issued by the licensee for use in Iowa as provided in Iowa Code section 542B.16.

6.1(2) Description of seal. The seal shall include: the name of the licensee, the Iowa license number, the word “Iowa” and the words “Professional Engineer” or “Land Surveyor” or “Professional Engineer and Land Surveyor,” as appropriate. The word “licensed” may be added but is not required on the seal. The word “professional” may be added but is not required on the land surveyor seal. Neither the word “registrant” nor “registered” shall be used on the seal. The seal shall substantially conform to the samples shown below:



6.1(3) A legible rubber stamp or other facsimile of the seal may be used.

6.1(4) Each engineering or land surveying document submitted to a client or any public agency, hereinafter referred to as the official copy (or official copies), shall contain a certification block on the first page or attached cover sheet for application of a seal by the licensee in responsible charge and a certification block for application of a seal by each professional consultant contributing to the submission. In lieu of each contributing professional consultant providing a certification block on the front page or attached cover sheet for application of a seal, a table shall be provided that identifies the contributing professionals and where their respective certification blocks can be found within the document. The seal and original signature shall be applied only to a final submission. Each official copy (or official copies) of a submission shall be stapled, bound or otherwise attached together so as to clearly establish the complete extent of the submission. Each certification block shall display the seal of the licensee and shall designate the portion of the submission for which that licensee is responsible, so that responsibility for the entire submission is clearly established by the combination of the stated seal responsibilities. Any nonfinal submission of an engineering or land surveying document to a client or public agency shall be clearly labeled “preliminary” or “draft.”

The engineering certification block shall conform to the wording in the sample shown below:

SEAL	I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.
	_____ (signature) (date)
	Printed or typed name
	License number _____
	My license renewal date is December 31, _____.
	Pages or sheets covered by this seal: _____ _____ _____

The land surveying certification block shall conform to the wording in the sample shown below. For maps or acquisition plats prepared from public records or previous measurements by others, the following land surveying certification block may be modified by removing the phrase “and the related survey work was performed.”

SEAL	I hereby certify that this land surveying document was prepared and the related survey work was performed by me or under my direct personal supervision and that I am a duly licensed Land Surveyor under the laws of the State of Iowa.
	_____ (signature) (date)
	Printed or typed name
	License number _____
	My license renewal date is December 31, _____.
	Pages or sheets covered by this seal: _____ _____ _____

6.1(5) The information requested in each certification block must be typed or legibly printed in permanent ink except for the signature and date of signature, which shall be an original signature and handwritten date in contrasting ink color on each official copy. The seal implies responsibility for the entire submission unless the area of responsibility is clearly identified in the information accompanying the seal.

6.1(6) It shall be the responsibility of the licensee to forward copies of all revisions to the submission, which shall become a part of the official copy of the submission. Such revisions shall be identified as applicable on a certification block or blocks with professional seals applied so as to clearly establish professional responsibility for the revisions.

6.1(7) The licensee is responsible for the custody and proper use of the seal. Improper use of the seal shall be grounds for disciplinary action.

6.1(8) Computer-generated seals may be used on final original documents.

6.1(9) Secure electronic signature. An electronic signature as defined in or governed by Iowa Code chapter 554D meets the signature requirements of this rule if it is protected by a security procedure, as defined in Iowa Code section 554D.103(14), such as digital signature technology. It is the licensee's responsibility to ensure, prior to affixing an electronic signature to an engineering or land surveying document, that security procedures are adequate to (1) verify the signature is that of a specific person and (2) detect any changes that may be made or attempted after the signature of the specific person is affixed.

This rule is intended to implement Iowa Code sections 542B.13, 542B.15, 542B.20 and 542B.30.

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CHAPTER 7
PROFESSIONAL DEVELOPMENT
[Prior to 11/14/01, see 193C—Chapter 3]

193C—7.1(542B,272C) General statement. Each licensee is required to meet the continuing education requirements of this chapter for professional development as a condition of licensure renewal.

193C—7.2(542B,272C) Definitions. As used in these rules, the following definitions apply:

“*College or unit semester or quarter hour*” means the unit of credit given for advanced technical and graduate courses from universities with programs accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc. or other related college course qualified in accordance with this chapter.

“*Continuing education*” means education obtained by a licensee in order to maintain, improve, or expand skills and knowledge obtained prior to initial licensure or to develop new and relevant skills and knowledge.

“*Continuing education unit (CEU)*” means the unit of credit customarily granted for continuing education courses. One continuing education unit is given for ten hours of class in an approved continuing education course.

“*Course or activity*” means any qualifying course or activity with a clear purpose and objective which will maintain, improve, or expand the skills and knowledge relevant to the licensee’s field of practice.

“*Independent study*” means any course or activity in which there is no real-time interaction between the training provider and the licensee, such as courses offered on the Internet.

“*Professional development hour (PDH)*” means a contact hour of instruction or presentation and is the common denominator for other units of credit.

193C—7.3(542B,272C) Professional development hours.

7.3(1) Allowable activities. Licensees may earn professional development hours by participating in a variety of activities. The following is a sample list of allowable activities and is not all-inclusive:

- a. Successful completion of college courses;
- b. Successful completion of continuing education courses;
- c. Successful completion of correspondence, televised, videotaped, and other short courses or tutorials;
- d. Successful completion of courses on-line via the Internet;
- e. Active participation in seminars, in-house courses, workshops, technical committees of professional engineering organizations, and professional conventions;
- f. Teaching or instructing in the activities set forth above if such teaching or instruction is outside of the licensee’s regular employment duties and if the licensee can document such teaching activity or instruction was newly developed and presented for the first time;
- g. Authoring published papers, articles or books;
- h. Obtaining patents;
- i. Attendance at satellite down-link video courses;
- j. Participation on an NCEES examination development committee;
- k. Attendance at engineering college graduate research seminars.

All of the allowable activities listed above must meet the requirements and restrictions set forth in this chapter to be accepted by the board.

7.3(2) PDH conversion. The following chart illustrates the conversion from other units to PDH:

ACTIVITY	PDH
1 College or unit semester hour Credit for qualifying college or community college courses will be based upon course credit established by the college.	45 PDH per semester hour
1 College or unit quarter hour Credit for qualifying college or community college courses will be based upon course credit established by the college.	30 PDH per quarter hour
1 Continuing Education Unit as defined in 193C IAC 7.2(542B,272C)	10 PDH
1 Contact hour attendance in a class, course, seminar, or professional or technical presentation made at a meeting, in-house training session, convention or conference. Credit for qualifying seminars and workshops will be based on 1 PDH unit for each hour of attendance. Attendance at qualifying programs presented at professional or technical society meetings will earn PDH units for the actual time of each program.	1 PDH per hour
1 Contact hour teaching a class, course, seminar, or a professional or technical presentation a. Teaching credit is valid for teaching a course or seminar for the first time only. b. Teaching credit does not apply to full-time faculty. c. Teaching credit is limited to 10 PDH per biennial renewal period.	2 PDH per hour
Each published paper, article, or book Credit for published material is earned in the biennium of publication.	10 PDH per publication
Active participation in a professional or technical society. Credit for active participation in professional and technical societies is limited to 2 PDH per renewal period per organization and requires that a licensee serve as an officer or actively participate in a committee of the organization. PDH credits are earned for a minimum of one year's service.	2 PDH per organization per renewal period
Each patent Credit for patents is earned in the biennium the patent is issued.	10 PDH per patent
NCEES examination development committee participation including the writing and grading of examination questions, writing reference materials for examinations, and evaluating past examination question performance. Licensees may claim a maximum of 15 PDH per biennial renewal period for participation in this activity.	3 PDH per hour of committee participation

7.3(3) Determination of credit. The board has final authority with respect to approval of courses, credit, PDH value for courses, and other methods of earning credit. No preapproval of offerings will be issued. The board may deny any renewal or reinstatement upon a determination of insufficient or unsatisfactory continuing education.

193C—7.4(542B,272C) Professional development guidelines. Continuing education activities that satisfy the professional development criteria are those that relate to engineering or land surveying practice or management. It is recognized that an engineer's specialized skills must have as their foundation a fundamental knowledge of chemistry, physics, mathematics, graphics, computations, communication, and humanities and social sciences. However, continuing education in the fundamentals alone will not be sufficient to maintain, improve, or expand engineering skills and knowledge. For that reason, licensees will be limited in their use of fundamental courses in proportion to ABET criteria for accreditation of engineering curricula. Continuing education activities are classified as:

7.4(1) Group 1 activities. Group 1 activities are intended to maintain, improve, or expand skills and knowledge obtained prior to initial licensure. The following chart illustrates the maximum PDH allowable per renewal period for Group 1 activities:

Type of course/activity	Number of PDH allowed per renewal period
Mathematics and basic sciences Math beyond Trigonometry Basic sciences: Chemistry, Physics, Life sciences, Earth sciences	10 PDH
Engineering sciences Mechanics, Thermodynamics, Electrical and electrical circuits, Materials science, *Computer science *Courses in computer science will generally be considered a part of the Engineering Sciences category in the ABET criterion and, therefore, limited to a maximum of 10 PDH per renewal period.	10 PDH
Humanities and social sciences Philosophy, Religion, History, Literature, Fine arts, Sociology, Psychology, Political science, Anthropology, Economics, Foreign languages, Professional ethics, Social responsibility	5 PDH
Engineering curriculum courses Accounting, Industrial management, Finance, Personnel administration, Engineering economy, English, Speech, *Computer applications *Courses in CAD and fundamental computer applications will generally not be applicable in either Group 1 or Group 2 activities. The computer is viewed as a tool available to the engineer or land surveyor, much as a pencil or hand-held calculator is a tool. Only computer courses that have the solution of engineering or land surveying problems as a purpose will be considered acceptable. An example of this might be a course that trains an engineer in the utilization of a specific software package to perform structural analysis. The concept of the computer as a tool does not apply to a computer engineer.	10 PDH

7.4(2) Group 2 activities. Group 2 activities are intended to develop new and relevant skills and knowledge. Credit for participation in activities in the group is unlimited, subject to maximum carryover. Typical areas include postgraduate level engineering science or design, new technology, environmental regulation and courses in management of engineering or land surveying activity (regular work duties do not qualify).

7.4(3) Independent study. To be readily acceptable by the board, independent study as defined in rule 7.2(542B,272C) must meet all of the following criteria:

- a. A written evaluation process is completed by the independent study provider; and
- b. A certificate of satisfactory completion is issued by the provider; and
- c. An evaluation assessment is issued to the licensee by the provider; and
- d. Documentation supporting such independent studies is maintained by the licensee and provided to the board as required by subrule 7.8(2).

A maximum of ten professional development hours of independent study activity will be allowed per biennium per licensee.

7.4(4) Exclusions. Types of continuing education activities which will be excluded from allowable continuing education are those in which it is not evident that the activity relates directly to the licensee's practice of professional engineering or land surveying or the management of the business concerns of the licensee's practice, or which do not comply with the board's administrative rules. Examples of activities that do not qualify as continuing education include the following:

- Regular employment;
- Toastmasters club meetings;
- Service club meetings or activities;
- Personal estate planning;
- Banquet speeches unrelated to engineering;
- Professional society business meeting portions of technical seminars;
- Financial planning/investment seminars;
- Foreign travel not related to engineering study abroad;
- Personal self-improvement courses;
- Real estate licensing courses;
- Stress management;

- Trade shows;
- Peer review;
- Accreditation review;
- Independent study or self-study that does not meet the requirements of subrule 7.4(3);
- Basic CAD and fundamental computer application courses;
- Undergraduate engineering seminars.

193C—7.5(542B,272C) Biennial requirement. The biennial requirement must be satisfied during the biennium prior to licensure renewal except for the carryover permitted.

7.5(1) The continuing education requirement for biennial licensure renewal is 30 professional development hours for an active licensee in engineering or land surveying. The number of professional development hours that may be carried forward into the next biennium shall not exceed 15.

7.5(2) Inactive licensees are exempt from the continuing education requirements.

7.5(3) Continuing education requirements for licensure in more than one engineering branch are the same as for licensure in a single branch of engineering.

7.5(4) The continuing education requirement for biennial licensure renewal for an individual who is active in both engineering and land surveying is 20 professional development hours in engineering and 20 professional development hours in land surveying. The number of professional development hours that may be carried forward into the next biennium shall not exceed 10 hours for each profession.

7.5(5) A licensee who is active in one profession and inactive in another shall meet the continuing education requirements for licensure in the profession in which active licensure is maintained.

7.5(6) A new licensee shall satisfy one-half the biennial continuing education requirement at the first renewal following initial licensure.

193C—7.6(542B,272C) Exemptions. The continuing education requirements may be reduced in proportion to the following:

1. Periods of time that the licensee serves honorably on active duty in the military services;
2. Periods of time that the licensee is licensed in and a resident of another state or district having continuing education requirements for professional engineering or land surveying and meets all requirements of that state or district for practice therein;
3. Periods of time that the licensee is a government employee working as a professional engineer or land surveyor and assigned to duty outside the United States; or
4. Documented periods of the licensee's active practice and absence from the United States that are approved by the board.

No exemption will be granted without a written request from the licensee with documentation of the period of absence.

193C—7.7(542B,272C) Hardships or extenuating circumstances. The board may, in individual cases involving hardship or extenuating circumstances, grant waivers of the continuing education requirements for a period of time not to exceed one year. No waiver or extension of time shall be granted unless the licensee makes a written request to the board for such action.

193C—7.8(542B,272C) Reports, records, and compliance review. At the time of application for license renewal, each licensee shall report, on a form provided by the board, the number of professional development hours achieved during the preceding biennium.

7.8(1) Record keeping. Maintaining records to be used to support professional development hours claimed is the responsibility of the licensee. It is recommended that each licensee keep a log showing the type of activity claimed, sponsoring organization, location, duration, instructor's or speaker's name, and PDH credits earned.

7.8(2) Compliance review. The board may select licensees for review of compliance with continuing education requirements on a random basis or upon receiving information regarding noncompliance and shall review compliance with continuing education requirements for reinstatement of lapsed or inactive

licenses. For each professional development hour claimed, licensees chosen for compliance review shall furnish:

- a. Proof of attendance. Attendance verification records in the form of completion certificates, or other documents supporting evidence of attendance;
- b. Verification of the hours claimed; and
- c. Information about the course content.

7.8(3) Compliance review sanctions. Any discrepancy between the number of PDHs reported and the number of PDHs actually supported by documentation may result in a disciplinary review.

7.8(4) Out-of-state residents. A person licensed to practice engineering or land surveying or both in Iowa shall be deemed to have complied with the continuing education requirement of this state during the periods that the person is a resident of another state or district which has a continuing education requirement for engineers or land surveyors and the individual meets all requirements of that state or district for practice therein. However, if selected for compliance review, such individuals must provide documentation as specified in 7.8(2).

These rules are intended to implement Iowa Code sections 272C.2, 272C.3, 542B.6, and 542B.18.

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CHAPTER 8
PROFESSIONAL CONDUCT OF LICENSEES

[Prior to 11/14/01, see 193C—Chapter 4]

193C—8.1(542B) General statement. In order to establish and maintain a high standard of integrity, skills and practice in the professions of engineering and land surveying, and to safeguard the life, health, property and welfare of the public, the following code of professional conduct shall be binding upon every person holding a certificate of licensure as a professional engineer or land surveyor in this state. The code of professional conduct is an exercise of the police power vested in the board by the Acts of the legislature.

193C—8.2(542B) Code of professional conduct. All persons licensed under Iowa Code chapter 542B are charged with having knowledge of the existence of this code of professional conduct and shall be expected to be familiar with its provisions, to understand them, and to abide by them. Such knowledge includes the understanding that the practices of engineering and land surveying are a privilege, as opposed to a right, and the licensee shall be forthright and candid in statements or written response to the board or its representatives on matters pertaining to professional conduct.

8.2(1) Responsibility to the public. Licensees shall conduct their professional practices in a manner that will protect life, health and property and enhance the public welfare. If their professional judgment is overruled under circumstances where safety, health and welfare of the public are endangered, they shall inform their employer or client of the possible consequences, notify such other proper authority as may be appropriate, and withdraw from further services on the project.

Licensees shall neither approve nor certify engineering or land surveying documents that may be harmful to the public health and welfare and that are not in conformity with accepted engineering or land surveying standards.

8.2(2) Competency for assignments. Licensees shall undertake to perform engineering or land surveying assignments only when qualified by education or experience in the specific technical field of professional engineering or land surveying involved. Licensees shall engage experts or advise that experts and specialists be engaged whenever the client or employer's interests are best served by such service.

Licensees may accept an assignment on a project requiring education or experience outside their field of competence, but only to the extent that their services are restricted to those phases of the project in which they are qualified. All other phases of such projects shall be performed by qualified associates, consultants or employees.

8.2(3) Truth in reports and testimony. Licensees, when serving as expert or technical witnesses before any court, commission, or other tribunal, shall express an opinion only when it is founded upon adequate knowledge of the facts in issue, upon a background of technical competence in the subject matter, and upon honest conviction of the accuracy and propriety of their testimony. Under these circumstances, the licensee must disclose inadequate knowledge.

Licensees shall be objective and truthful in all professional reports, statements or testimony. All relevant and pertinent information shall be included in such reports, statements or testimony. Licensees shall avoid the use of statements containing a material misrepresentation of fact or omitting a material fact.

8.2(4) Conflict of interest. The following guidelines regarding conflict of interest shall apply:

a. Licensees shall not issue statements, criticisms or arguments on engineering or land surveying matters connected with public policy which are influenced or paid for by an interested party, or parties, unless they have prefaced their comments by explicitly identifying themselves, by disclosing the identities of the party or parties on whose behalf they are speaking, and by revealing the existence of any pecuniary interest.

b. Licensees shall avoid all known conflicts of interest with their employers or clients and, when unforeseen conflicts arise, shall promptly inform their employers or clients of any business association, interest, or circumstances that could influence judgment or the quality of services.

c. Licensees shall not accept compensation, financial or otherwise, from more than one party for services on the same project, unless the circumstances are fully disclosed and agreed to by all interested parties.

d. Licensees shall act in professional matters for each employer or client as faithful agents or trustees and maintain full confidentiality on all matters in which the welfare of the public is not endangered.

8.2(5) Ethics. Licensees shall conduct their business and professional practices of engineering and land surveying in an ethical manner. In addition to the provisions of this chapter, the board will consider, although not necessarily be bound by, the ethical standards that address public protection issues adopted by a recognized state or national engineering or land surveying organization such as the National Society of Professional Engineers and the National Society of Professional Surveyors.

8.2(6) Unethical or illegal conduct.

a. *Business practices.* The following guidelines regarding unethical or illegal business practices shall apply:

(1) Licensees shall not pay or offer to pay, either directly or indirectly, any commission, percentage, brokerage fee, political contribution, gift, or other consideration to secure work, except to a bona fide employee or bona fide, established commercial or marketing agency retained by them or to secure positions through employment agencies.

(2) Licensees, as employers, shall not engage in any discriminatory practice prohibited by law and shall, in the conduct of their business, employ personnel upon the basis of merit.

(3) Licensees shall not solicit or accept gratuities, directly or indirectly, from contractors, their agents, or other parties dealing with their clients or employers in connection with work for which they are responsible.

(4) Licensees shall not solicit or accept an engineering or land surveying contract from a governmental body when a principal or officer of their organization serves as a member.

(5) Licensees shall not associate with, or permit the use of their names or firms in a business venture by, any person or firm that they know, or have reason to believe, is engaging in business or professional practice of a fraudulent or dishonest nature.

(6) Brochures or other presentations incident to the solicitation of employment shall not misrepresent pertinent facts concerning employers, employees, associates, firms, joint ventures, or past accomplishments.

b. *Individual professional conduct.* The following guidelines regarding illegal or unethical individual professional conduct shall apply:

(1) Licensees shall not use association with nonengineers, corporations or partnerships as “cloaks” for unethical acts.

(2) Licensees shall not violate any local, state or federal criminal law in the conduct of professional practice.

(3) Licensees shall not violate licensure laws of any state or territory.

(4) Licensees shall not affix their signatures or seals to any plans, plats or documents dealing with subject matter in which those licensees lack competence, nor to any plan, plat or document not prepared under their direct personal direction and control.

(5) Licensees shall not falsify their qualifications or permit misrepresentation of their or their associates' qualifications. They shall not misrepresent or exaggerate their responsibility in or for the subject matter of prior assignments.

c. *Real property inspection reports.*

(1) Licensees shall not represent themselves as licensed land surveyors or professional engineers on real property inspection reports (i.e., mortgage surveys).

(2) Licensees shall not place their firm names, logos, or title blocks on real property inspection reports (i.e., mortgage surveys).

193C—8.3(542B) Reporting of acts or omissions. Licensees shall report acts or omissions by a licensee that constitute negligence or carelessness. For the purposes of these rules, “negligence or

carelessness” means demonstrating unreasonable lack of skill in the performance of engineering or land surveying services by failure of a licensee to maintain a reasonable standard of care in the licensee’s practice of engineering or land surveying. In the evaluation of reported acts or omissions, the board shall determine if the engineer or land surveyor has applied learning, skill and ability in a manner consistent with the standards of the professions ordinarily possessed and practiced in the same profession at the same time. Standards referred to in the immediately preceding sentence shall include any minimum standards adopted by this board and any standards adopted by recognized national or state engineering or land surveying organizations.

193C—8.4(542B) Standards of integrity.

1. Licensees shall answer all questions of a duly constituted investigative body of the state of Iowa concerning alleged violations by another person or firm.
2. When proven wrong, licensees shall admit and accept their own errors and shall not distort or alter the facts to justify their own decisions.
3. If licensees know or have reason to believe that another person or firm may be in violation of any Iowa law or rule regarding ethics or conduct of professional engineering or land surveying practice, those licensees shall present such information to the engineering and land surveying examining board in writing and shall cooperate with the board in furnishing further information or assistance required by the board.
4. Licensees shall not assist in the application of an individual they know is unqualified for licensure by reason of education, experience or character.

193C—8.5(542B) Engineering and land surveying services offered by business entities.

8.5(1) Purpose of rule. The purpose of this rule is to protect the public from misleading or deceptive advertising by business entities that hold themselves out to the public as providing professional engineering or land surveying services and to guard against the unlicensed practice of professional engineering or land surveying by persons who are not properly licensed to perform such services in the state of Iowa. This rule shall not be construed as restricting truthful advertising by business entities that appropriately place professional engineers or land surveyors in responsible charge of the professional services offered to and performed for the public.

8.5(2) Definitions. For purposes of this rule, the following definitions shall apply:

“*Business entity*” shall include corporations, partnerships, limited liability companies, persons using fictitious or assumed names, or any other form of entity which may conduct business.

“*In responsible charge*” means having direct control of and personal supervision over any land surveying work or work involving the practice of professional engineering. One or more persons, jointly or severally, may be in responsible charge. Indicia of being “in responsible charge” include:

1. Obtaining or setting the project or service parameters or criteria.
2. Dictating the manner and methods by which professional services are performed.
3. Establishing procedures for quality control and authority over professional services in a manner that ensures that the professional licensee is in control of the work and of all individuals performing the work under the licensee’s supervision.
4. Spending sufficient time directly performing the work or directly supervising the work to ensure that the licensee is familiar with all significant details of the work.
5. Maintaining familiarity with the capabilities and methods of the persons performing professional services, and providing adequate training for all persons working under the licensee’s direct supervision.
6. Sustaining readily accessible contact with all persons performing professional services by direct physical proximity, or as appropriate in the licensee’s professional judgment, by frequent communication, in clear and complete verbal and visual form, of information about the work being performed.
7. Specifically pertaining to land surveying, reviewing all field evidence and making all final decisions concerning the placement of survey monuments and surveyed lines.

“*Professional services*” shall include professional engineering and land surveying services, as defined in Iowa Code sections 542B.2(5) and (8) and 542B.27, as applicable to the fact situation at issue.

8.5(3) *General rule.* Business entities offering professional services to the public must be owned, managed, or appropriately staffed by one or more professional engineers or land surveyors, as applicable, who are in responsible charge of all professional services offered and performed.

8.5(4) *Appropriate staffing.* The nature and extent of appropriate staffing by licensed professionals is necessarily a fact-based determination dependent on such factors as the nature and volume of professional services offered and performed, the risk of unlicensed practice, the impact of the professional services on the life, health and safety of the public and the public’s property, and the representations made to the public. While the legal nature of the business entity’s relationship (e.g., owner, manager, employee) with a licensed professional engineer or land surveyor is not necessarily determinative, licensed professionals must be in responsible charge of all professional services offered and performed.

8.5(5) *Professional engineering or land surveying firms.* Business entities holding themselves out to the public as professional engineering or land surveying firms cannot satisfy the requirements of this rule solely by retaining, through employment or contract, a licensed professional on an as-needed, occasional or consulting basis. Such an arrangement fosters unlicensed practice by the unlicensed owners or managers who place themselves in charge of determining when a licensed professional is needed. When a business entity conveys to the public that it is organized as a firm of licensed professionals, the public has a right to expect that the firm retains the full-time services of one or more licensed professionals. “Full-time” in this context is not measured by hours, but by a licensee’s sustained, meaningful, and effective, direct supervision of all professional services performed, whether the firm performs services, for example, 20 hours per month or 80 hours per week.

8.5(6) *Restricted services.* Business entities that do not generally hold themselves out to the public as professional engineering or land surveying firms, but that do offer some type of professional engineering or land surveying service, shall be appropriately staffed by licensed professionals in a manner that (a) corresponds with the representations made to the public, (b) places licensed professionals in responsible charge of all professional services performed, and (c) guards against the unlicensed practice of professional engineering or land surveying.

8.5(7) *Permitted practices.*

a. Nothing in this rule is intended to prevent an individual or business entity from truthfully offering services as a project manager, administrator, or coordinator of a multidisciplinary project.

b. Nothing in this rule shall prevent a joint venture arrangement between an engineering or land surveying firm and a business entity that is not owned, managed, or staffed by professional engineers or land surveyors, in which the venturing entities jointly and truthfully offer professional engineering or land surveying services on a project-by-project basis. Licensed professional engineers and land surveyors who participate in such arrangements shall ensure that the public is accurately informed as to the nature of all professional services to be performed and by whom the services will be performed.

8.5(8) *Remedies against licensees.* Licensed professional engineers or land surveyors who aid and abet the unlicensed offering or practice of professional engineering or land surveying, or who otherwise knowingly participate in a business entity that does not comply with this rule, are engaging in unethical practices that are harmful or detrimental to the public and are subject to disciplinary action by the board.

8.5(9) *Remedies against business entities and unlicensed individuals.* Pursuant to Iowa Code section 542B.27, the board may by order impose civil penalties against any business entity or unlicensed individual that offers or performs professional services in violation of Iowa Code chapter 542B. The board shall apply the guidelines set forth in this rule in determining whether a violation exists and in establishing an appropriate civil penalty. Civil penalties may not exceed \$1000 for each offense. Each day of a continued violation constitutes a separate offense. In addition to a civil penalty or as an alternative to such remedy, the board may seek an injunction in district court to prevent future violations by business entities or by licensed or unlicensed individuals.

These rules are intended to implement Iowa Code sections 542B.6, 542B.21 and 542B.26 and chapter 272C.

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CHAPTER 9
COMPLAINTS, INVESTIGATIONS AND DISCIPLINARY ACTION

[Prior to 11/14/01, see 193C—Chapter 4]

193C—9.1(542B) Complaints and investigations.

9.1(1) *Complaints.* The board shall, upon receipt of a complaint in writing, or may upon its own motion pursuant to other evidence received by the board, review and investigate alleged acts or omissions which reasonably constitute cause under applicable law or administrative rule for licensee discipline. Written complaints may be submitted to the board office by mail, E-mail, facsimile, or personal delivery by members of the public, including clients, business organizations, nonprofit organizations, governmental bodies, licensees, or other individuals or entities with knowledge of possible violations of laws or rules by licensees.

9.1(2) *Form and content.* A written complaint may be submitted on forms available from the board office and on the board's Web site. The written complaint shall include the following information:

- a.* The full name, address, and telephone number of complainant (individual who is complaining).
- b.* The full name, address, and telephone number of respondent (individual against whom the complaint is filed).
- c.* A statement of the facts and circumstances giving rise to the complaint, including a description of the alleged acts or omissions which the complainant believes demonstrate that the respondent has violated or is violating laws or rules enforced by the board.
- d.* Citation of the statutes and administrative rules allegedly violated by the respondent.
- e.* Evidentiary supporting documentation.
- f.* Steps, if any, that have been taken by the complainant to resolve the dispute with the respondent prior to the filing of the complaint.

9.1(3) *Initial complaint screening.* All written complaints received by the board shall be initially screened by the board's administrator to determine whether the allegations of the complaint fall within the board's investigatory jurisdiction and whether the facts presented, if true, would constitute a basis for disciplinary action against a licensee. Complaints which are clearly outside the board's jurisdiction, which clearly do not allege facts upon which disciplinary action would be based, or which are frivolous shall be referred by the board administrator to the board for closure at the next scheduled board meeting. All other complaints shall be referred by the board administrator to the board's disciplinary committee for committee review.

9.1(4) *Investigation of allegations.* In order to determine if probable cause exists for a hearing on the complaint, the board may cause an investigation to be made into the allegations of the complaint. It may refer the complaint to a peer review committee or investigator for investigation, review and report to the board.

9.1(5) *Informal discussion.* If the board considers it advisable, or if requested by the affected licensee, the board may grant the licensee an opportunity to appear before the board or a committee of the board for a voluntary informal discussion of the facts and circumstances of an alleged violation. The licensee may be represented by legal counsel at the informal discussion. The licensee is not required to attend the informal discussion. By electing to attend, the licensee waives the right to seek disqualification, based upon personal investigation of a board member or staff, from participating in making a contested case decision or acting as a presiding officer in a later contested case proceeding. Because an informal discussion constitutes a part of the board's investigation of a pending disciplinary case, the facts discussed at the informal discussion may be considered by the board in the event the matter proceeds to a contested case hearing and those facts are independently introduced into evidence. The board may seek a consent order at the time of the informal discussion. If the parties agree to a consent order, a statement of charges shall be filed simultaneously with the consent order.

9.1(6) *Immunity.* As provided by Iowa Code section 272C.8, a person shall not be civilly liable as a result of filing a report or complaint with the board unless such act is done with malice, nor shall an employee be dismissed from employment or discriminated against by an employer for filing such a report or complaint.

9.1(7) *Role of complainant.* The role of the complainant in the disciplinary process is limited to providing the board with factual information relative to the complaint. A complainant is not party to any disciplinary proceeding which the board may initiate based in whole or in part on information provided by the complainant.

9.1(8) *Role of the board.* The board does not act as an arbiter of disputes between private parties, nor does the board initiate disciplinary proceedings to advance the private interest of any person or party. The role of the board in the disciplinary process is to protect the public by investigating complaints and initiating disciplinary proceedings in appropriate cases. The board possesses sole decision-making authority throughout the disciplinary process, including the authority to determine whether a case will be investigated, the manner of the investigation, whether a disciplinary proceeding will be initiated, and the appropriate licensee discipline to be imposed, if any.

193C—9.2(542B) Ruling on the initial inquiry.

9.2(1) *Dismissal.* If a determination is made by the board that a complaint is without grounds or merit, the complaint shall be dismissed. A letter of explanation concerning the decision of the board shall be sent to the respondent and the complainant.

9.2(2) *Requirement of further inquiry.* If determination is made by the board to order further inquiry, the complaint and initial recommendations shall be provided to the investigator(s) along with a statement specifying the information deemed necessary.

9.2(3) *Acceptance of the case.* If a determination is made by the board to initiate disciplinary action the board may enter into an informal settlement or recommend formal disciplinary proceedings. The board's rules regarding informal settlement are found at 193 IAC 7.4(17A,272C).

This rule is intended to implement Iowa Code sections 542B.21, 542B.22 and 272C.6.

193C—9.3(542B) Reprimands, probation, license suspension or license revocation. Acts or omissions on the part of a licensee that are grounds for a reprimand, period of probation, license suspension or license revocation are as follows:

9.3(1) Acts or offenses defined in Iowa Code section 542B.21.

9.3(2) Acts or omissions which constitute negligence or carelessness that the licensee must report to the board as defined in rule 193C—8.3(542B).

9.3(3) Unethical conduct including, but not limited to, violation of the code of professional conduct in 193C—Chapter 8.

9.3(4) Failure to respond within 30 days to written communications from the board and to make available any relevant records with respect to an inquiry or complaint about the licensee's unprofessional conduct. The period of 30 days shall commence on the date when such communication was sent from the board by registered or certified mail with return receipt requested to the address appearing in the last licensure.

9.3(5) Failure to comply with a warning from the board with respect to licensee behavior.

9.3(6) Any violation as provided in Iowa Code section 272C.10.

193C—9.4(542B) Disciplinary findings and sanctions. The board's decision may include one or more of the following findings or sanctions:

1. Exoneration of respondent.
2. Revocation of license.
3. Suspension of license until further order of the board or for a specified period.
4. Nonrenewal of license.
5. Prohibition, until further order of the board or for a specific period, of engaging in specified procedures, methods or acts.
6. Probation.
7. Requirement of additional education or training.
8. Requirement of reexamination.
9. Issuance of a reprimand.

10. Imposition of civil penalties.
11. Issuance of citation and warning.
12. Desk review.
13. Other sanctions allowed by law as may be appropriate.

193C—9.5(272C) Civil penalties. In addition to other disciplinary options, the board may assess civil penalties of up to \$1000 per violation against licensees who violate any provision of rule 9.3(542B). Factors the board may consider when determining whether and in what amount to assess civil penalties include:

1. Whether other forms of discipline are being imposed for the same violation.
2. Whether the amount imposed will be a substantial economic deterrent to the violation.
3. The circumstances leading to the violation.
4. The severity of the violation and the risk of harm to the public.
5. The economic benefits gained by the licensee as a result of the violation.
6. The interest of the public.
7. Evidence of reform or remedial action.
8. Time elapsed since the violation occurred.
9. Whether the violation is a repeat offense following a prior cautionary letter, disciplinary order, or other notice of the nature of the infraction.
10. The clarity of the issue involved.
11. Whether the violation was willful and intentional.
12. Whether the licensee acted in bad faith.
13. The extent to which the licensee cooperated with the board.
14. Whether the licensee practiced professional engineering or land surveying with a lapsed, inactive, suspended or revoked license.

This rule is intended to implement Iowa Code section 542B.22.

193C—9.6(542B) Publication of decisions. In addition to publication requirements found at 193 IAC 7.30(3), the following notifications shall be issued:

1. Following suspension of a land surveyor's license, notification must be mailed to the county recorders and county auditors of the county of residence and immediately adjacent counties in Iowa.
2. Following revocation of a land surveyor's license, notification must be mailed to all county auditors in Iowa and the county recorders in the county of residence and immediately adjacent counties in Iowa.
3. Following the suspension or revocation of the license of a professional engineer or land surveyor, notification must be issued to other boards of examiners for engineers and land surveyors under the jurisdiction of the government of the United States. This notification may be made through the National Council of Examiners for Engineering and Surveying or other national organizations recognized by the board. In addition, if the licensee is known to be registered in another nation in North America, the appropriate board(s) shall be notified of the action.

193C—9.7(542B) Disputes between licensees and clients. Reports from the insurance commissioner or other agencies on the results of judgments or settlements of disputes arising from malpractice claims or other actions between professional engineers or land surveyors and their clients may be referred to counsel or peer review committee. The counsel or peer review committee shall investigate the report for violation of the statutes or rules governing the practice or conduct of the licensee. The counsel or peer review committee shall advise the board of any probable violations, any further action required, or recommend dismissal from further consideration.

193C—9.8(272C,542) Confidentiality of complaint and investigative information.

9.8(1) General provisions. All complaint and investigative information received or created by the board is privileged and confidential pursuant to Iowa Code section 272C.6(4). Such information shall not be released to any person except as provided in that section.

9.8(2) Disclosure to the subject of the investigation.

a. Legal authority. Pursuant to Iowa Code Supplement section 546.10(9) [2007 Iowa Acts, Senate File 360, section 7], the board may supply to a licensee who is the subject of a disciplinary complaint or investigation, prior to the initiation of a disciplinary proceeding, all or such parts of a disciplinary complaint, disciplinary or investigatory file, report, or other information, as the board in its sole discretion believes would aid the investigation or resolution of the matter.

b. General rule. As a matter of general policy, the board shall not disclose confidential complaint and investigative information to a licensee except as permitted by Iowa Code section 272C.6(4). Disclosure of a complainant's identity in advance of the filing of formal disciplinary charges, for instance, may adversely affect a complainant's willingness to file a complaint with the board.

c. Exceptions to general rule. The board may exercise its discretion to release information to a licensee that would otherwise be confidential under Iowa Code section 272C.6(4) under narrow circumstances, including but not limited to the following:

(1) Following a board determination that probable cause exists to file disciplinary charges against a licensee and prior to the issuance of the notice of hearing, the board may provide the licensee with a peer review or investigative report or expert opinions, as reasonably needed for the licensee to assess the merits of a settlement proposal.

(2) The board may release to a licensee who is the subject of a board-initiated investigation, including those initiated following the board's receipt of an anonymous complaint, such records or information as may aid the investigation or resolution of the matter.

(3) The board may release information from a peer review or consultant's report when soliciting the licensee's position will aid in making the probable cause determination and such disclosure can be made to the licensee without revealing identifying information regarding the complainant, peer reviewer or consultant.

These rules are intended to implement Iowa Code chapter 17A and sections 542B.2, 542B.22, and 272C.6.

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CHAPTER 10
PEER REVIEW

[Prior to 11/14/01, see 193C—4.5(542B)]

193C—10.1(542B,272C) Peer review committee (PRC). The board may appoint a peer review committee for the investigation of a complaint about the acts or omissions of one or more licensees.

10.1(1) PRC membership. A PRC shall generally consist of three or more licensed engineers or licensed land surveyors or both, as determined by the board, who are selected for their knowledge and experience in the type of engineering or land surveying involved in the complaint. The board may appoint a two-member PRC or a single peer review consultant to perform the function of a PRC when, in the board's opinion, appointing a committee with three or more members would be impractical, unnecessary or undesirable given the nature of the expertise required, the need for prompt action or the circumstances of the complaint.

An individual shall be ineligible for membership on a PRC in accordance with the standard for disqualification found at 193 IAC 7.14(1). If a PRC member is unable to serve after an investigation has begun, the PRC member must notify the board office.

10.1(2) Authority. The PRC's investigation may include activities such as interviewing the complainant, the respondent, individuals with knowledge of the alleged violation, and individuals with knowledge of the respondent's practice in the community; gathering documents; conducting site visits; and performing independent analyses as deemed necessary. Although the board does not become involved in a complaint investigation, the board may give specific instructions to the PRC regarding the scope of the investigation. In the course of the investigation, PRC members shall refrain from advising the complainant or respondent on actions that the board might take.

10.1(3) Term of service. The PRC serves at the pleasure of the board. The board may dismiss any or all members of a PRC or add new members at any time.

10.1(4) Compensation. The terms of payment as authorized by the peer review agreement may vary based on the nature and complexity of each assignment and whether the peer reviewer will act as a single peer reviewer or as part of a peer review committee. The peer reviewer shall be additionally entitled to reimbursement of expenses directly related to the peer review process, deposition or hearing preparation, or deposition or hearing testimony, such as mileage, meals, or out-of-pocket charges for securing copies of documents. Expenses will be reimbursed as allowed under the manuals and guidelines published by the Iowa department of administrative services, state accounting enterprise. The PRC shall not hire legal counsel, investigators, secretarial help or any other assistance without written authorization from the board.

193C—10.2(542B,272C) Reports. Each PRC shall submit a written report to the board within a reasonable period of time.

10.2(1) Components of the report. The report shall include:

- a. A statement of the charge to the PRC;
- b. A description of the actions taken by the PRC in its investigation, including but not limited to document review, interviews and site visits;
- c. A summary of the PRC's findings, including (1) the PRC's opinion as to whether a violation has occurred, (2) citation of the Iowa Code section(s) and Iowa Administrative Code rule(s) violated, and (3) the PRC's opinion of the seriousness of the violation; and
- d. A recommendation.

In the case of a land surveyor PRC report, the report must be plat-specific as to the violations.

10.2(2) Recommended action. The PRC report shall recommend one of the following:

- a. Dismissal of the complaint,
- b. Further investigation, or
- c. Disciplinary proceedings.

If the PRC recommends further investigation or disciplinary proceedings, supporting information must be submitted to the board including citation of the specific Iowa Code section(s) and Iowa Administrative Code rule(s) violated.

10.2(3) *Disciplinary recommendations.* When recommending disciplinary proceedings, a PRC shall refrain from suggesting a particular form of discipline, but may provide guidance on the severity of the violations that prompted the recommendation and may identify professional areas in which the licensee needs additional education, experience or monitoring in order to safely practice.

193C—10.3(542B,272C) Confidentiality. The PRC shall not discuss its findings and conclusions with any party to the complaint. PRC findings including the name of the complainant shall be kept confidential at all times. The PRC shall not reveal its findings to anyone other than the board (through its report to the board) or board staff. PRC findings shall be used only for the purposes of the board's possible disciplinary action and not for any other court case, lawsuit, or investigation. PRC reports are not subject to discovery.

193C—10.4(542B,272C) Testimony. PRC members may be required to testify in the event of formal disciplinary proceedings.

These rules are intended to implement Iowa Code section 272C.3.

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CHAPTER 11
MINIMUM STANDARDS FOR PROPERTY SURVEYS
[Prior to 11/14/01, see 193C—Chapter 2]

193C—11.1(542B) Scope. Each land surveyor shall comply with the minimum standards for property surveys described by statute or administrative rule. The minimum standards in this chapter shall apply to all property surveys performed in this state except those done for acquisition plats as described in Iowa Code chapter 354.

193C—11.2(542B) Definitions. For the purposes of these rules, the following definitions shall apply:

“*Plat*” means both a plat of survey and a subdivision plat as those terms are defined in Iowa Code section 355.1.

“*Property survey*” means any land survey performed for the purpose of describing, monumenting, retracing and establishing boundary lines, dividing, subdividing, or platting one or more parcels of land.

“*Retrace*” means following along a previously established line to logical termini monumented by corners that are found or placed by the surveyor.

193C—11.3(542B) Boundary location. Every property survey shall be made in accordance with the legal description (record title) boundaries as nearly as is practicable. The surveyor shall acquire data necessary to retrace record title boundaries, centerlines, and other boundary line locations. The surveyor shall analyze the data and make a careful determination of the position of the boundaries of the parcel being surveyed. The surveyor shall make a field survey, locating and connecting monuments necessary for location of the parcel, and coordinate the facts of such survey with the analysis. The surveyor shall set monuments marking the corners of such parcel unless monuments already exist at such corners.

193C—11.4(542B) Descriptions. Descriptions defining land boundaries written for conveyance or other purposes shall be complete, providing definite and unequivocal identification of lines or boundaries. The description must contain dimensions sufficient to enable the description to be platted and retraced and shall describe the land surveyed either by government lot or by quarter-quarter section or by quarter section and shall identify the section, township, range and county; and by metes and bounds commencing with some corner marked and established in the U.S. Public Land Survey System; or if such land is located in a recorded subdivision or recorded addition thereto, then by the number or other description of the lot, block or subdivision thereof which has been previously tied to a corner marked and established by the U.S. Public Land Survey System. If the parcel is described by metes and bounds, it may be referenced to known lot or block corners in recorded subdivision or additions.

193C—11.5(542B) Plats. A plat shall be drawn for every property survey performed showing information developed by the survey and including the following elements:

11.5(1) The plat shall be drawn to a convenient scale which shall be clearly stated and graphically illustrated by a bar scale on every plat sheet.

11.5(2) The plat shall show the length and bearing of the boundaries of the parcels surveyed. Where the boundary lines show bearing, lengths or locations which vary from those recorded in deeds, abutting plats or other instruments, the following note shall be placed along such lines: “recorded as (show recorded bearing, length or location).”

11.5(3) The plat shall show and identify all monuments necessary for the location of the parcel and shall indicate whether such monuments were found or placed and shall include an accurate description of each monument consisting of size, shape, material type, capped with license number, and color as applicable.

11.5(4) The plat shall be captioned to identify the person for whom the survey was made and the date of the survey and shall describe the parcel as provided in rule 11.4(542B) above.

11.5(5) The plat shall show that record title boundaries, centerlines, and other boundary lines were retraced to monuments found or placed by the surveyor. The surveyor shall retrace those exterior lines

of a section that divide a metes and bounds-described parcel of land to determine acreage for assessment and taxation purposes.

11.5(6) The plat shall show that the survey is tied to a physically monumented land line which is identified by two U.S. Public Land Survey System corners or by two physically monumented corners of a recorded subdivision. The plat shall show a distance relationship measured by the surveyor between the two corners on the physically monumented land line. The physically monumented land line shall be germane to the survey of the lot, parcel, or tract.

11.5(7) The plat shall bear the signature of the land surveyor, a statement certifying that the work was performed by the surveyor or under the surveyor's direct personal supervision, the date of signature, and the surveyor's Iowa license number and legible seal as provided in rule 193C—6.1(542B).

11.5(8) The surveyor shall record every plat and description with the county recorder no later than 30 days after signature on the plat by the surveyor. The 30-day requirement shall not apply to subdivision plats.

193C—11.6(542B) Measurements.

11.6(1) Measurements shall be made with instruments and methods capable of attaining the required accuracy for the particular problem involved.

11.6(2) Measurements as placed on the plat shall be in conformance with the capabilities of the instruments used.

11.6(3) The unadjusted closure for all closed traverse surveys shall be not greater than 1 in 5,000 and, for subdivision boundaries, 1 in 10,000.

11.6(4) In a closed traverse, the sum of the measured angles shall agree with the theoretical sum by a difference not greater than 30 seconds times the square root of the number of angles.

11.6(5) The unadjusted error of field measurements shall not be greater than 1 in 5,000.

11.6(6) The relative positional tolerance at the 95 percent confidence level shall be as follows:

- a. For subdivision boundaries: $\pm(0.13 \text{ feet} + 1:10,000)$
- b. For all other land surveying: $\pm(0.26 \text{ feet} + 1:5,000)$

11.6(7) Bearings or angles on any property survey plat shall be shown to the nearest one minute; distance shall be shown to the nearest one-tenth foot.

193C—11.7(542B) Monuments. Permanent monuments shall be constructed of reasonably permanent material solidly embedded in the ground and capable of being detected by commonly used magnetic or electronic equipment. The licensed land surveyor shall affix to the top of each monument set by the surveyor a cap of reasonably inert material bearing an embossed or stencil-cut marking of the Iowa license number of the licensed land surveyor. Monuments or marks placed in pavements need not be capped. See rule 11.3(542B).

These rules are intended to implement Iowa Code sections 355.3 and 542B.2.

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CHAPTER 12
MINIMUM STANDARDS FOR U.S. PUBLIC LAND SURVEY
CORNER CERTIFICATES
[Prior to 11/14/01, see 193C—2.8(355)]

193C—12.1(542B) General statement. Each land surveyor shall comply with the minimum standards for preparing a U.S. Public Land Survey Corner Certificate as described by statute or administrative rule. The minimum standards in this chapter shall apply to every corner certificate prepared in this state.

193C—12.2(355) U.S. Public Land Survey Corner Certificate.

12.2(1) A corner is considered a part of the U.S. Public Land Survey System if it has the status of a corner of a:

- a. Quarter-quarter section or larger aliquot part of a section.
- b. Fractional quarter-quarter section or larger fractional part of a section.
- c. Government lot.

12.2(2) A U.S. Public Land Survey Corner Certificate shall be prepared by the surveyor as part of any land surveying which includes the use of a U.S. Public Land Survey System corner if one or more of the following conditions exist:

- a. There is no certificate for the corner on file with the recorder of the county in which the corner is located.
- b. The surveyor in responsible charge of the land surveying accepts a corner position which differs from that shown in the public records of the county in which the corner is located.
- c. The corner monument is replaced or modified in any way.
- d. The reference ties in an existing public record are incorrect or missing.

12.2(3) A U.S. Public Land Survey Corner Certificate shall comply with the following requirements:

a. The identity of the corner, with reference to the U.S. Public Land Survey System, shall be clearly indicated.

b. The certificate shall contain a narrative explaining:

- (1) The reason for preparing the certificate.
- (2) The evidence and detailed procedure used in establishing or confirming the corner position whether found or placed.
- (3) The monumentation found or placed perpetuating the corner position with an accurate description of each monument including but not limited to size, shape, material type, capped with license number, and color.

(4) The extent of the search for an existing monument when the corner is reset as obliterated or lost.

c. The certificate shall contain a plan-view drawing depicting:

(1) Relevant monuments including the reference monumentation and an accurate description thereof.

(2) Physical surroundings including highway and street centerlines, fences, structures and other artificial or natural objects as applicable that would facilitate recovery of the corner.

(3) Reference ties in sufficient detail to enable recovery of the corner. There shall be at least three reference ties from the corner to durable physical objects near the corner which are located so that the intersection of any two of the ties will yield a strong corner position recovery. All ties shall be measured to one-hundredth of a foot.

d. The certificate shall bear the signature of the land surveyor, a statement certifying that the work was performed by the surveyor or under the surveyor's direct personal supervision, the date of signature, and the surveyor's Iowa license number and legible seal as provided in rule 193C—6.1(542B).

12.2(4) The surveyor shall record the required U.S. Public Land Survey Corner Certificate and forward a copy to the county engineer of the county in which the corner is located within 30 days after completion of the surveying.

These rules are intended to implement Iowa Code sections 355.3, 355.11 and 542B.2.

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CHAPTER 13
CIVIL PENALTIES FOR UNLICENSED PRACTICE
[Prior to 11/14/01, see 193C—1.10(542B)]

193C—13.1(542B) General statement. The board may impose civil penalties by order against a person who is not licensed as an engineer or land surveyor pursuant to Iowa Code chapter 542B based on the unlawful practices specified in Iowa Code section 542B.27. In addition to the procedures set forth in Iowa Code section 542B.27, this rule shall apply.

13.1(1) The notice of the board's intent to impose a civil penalty required by Iowa Code section 542B.27 shall be served upon the nonlicensee by restricted certified mail, return receipt requested, or personal service in accordance with Rule of Civil Procedure 56.1. Alternatively, the nonlicensee may accept service personally or through authorized counsel. The notice shall include the following:

a. A statement of the legal authority and jurisdiction under which the proposed civil penalty would be imposed.

b. A reference to the particular sections of the statutes and rules involved.

c. A short and plain statement of the alleged unlawful practice.

d. The dollar amount of the proposed civil penalty.

e. Notice of the nonlicensee's right to a hearing and the time frame in which hearing must be requested.

f. The address to which written request for hearing must be made.

13.1(2) Nonlicensees must request a hearing within 30 days of the date the notice is mailed if served through restricted certified mail to the last-known address or within 30 days of the date of service if service is accepted or made in accordance with Rule of Civil Procedure 56.1. A request for hearing must be in writing and is deemed made on the date of the United States Postal Service postmark or the date of personal service.

13.1(3) If a request for hearing is not timely made, the board chair or the chair's designee may issue an order imposing the civil penalty described in the notice. The order may be mailed by regular first-class mail or served in the same manner as the notice of intent to impose civil penalty.

13.1(4) If a request for hearing is timely made, the board shall issue a notice of hearing and conduct a hearing in the same manner as applicable to a disciplinary case against a licensed engineer or land surveyor.

13.1(5) In addition to the factors set forth in Iowa Code section 542B.27, the board may consider the following when determining the amount of civil penalty to impose, if any:

a. The time elapsed since the unlawful practice occurred.

b. Evidence of reform or remedial actions.

c. Whether the violation is a repeat offense following a prior warning letter or other notice of the nature of the infraction.

d. Whether the violation involved an element of deception.

e. Whether the unlawful practice violated a prior order of the board, court order, cease and desist agreement, consent order, or similar document.

f. The clarity of the issue involved.

g. Whether the violation was willful and intentional.

h. Whether the nonlicensee acted in bad faith.

i. The extent to which the nonlicensee cooperated with the board.

13.1(6) A nonlicensee may waive the right to a hearing and all attendant rights and enter into a consent order imposing a civil penalty at any stage of the proceeding upon mutual consent of the board.

13.1(7) The notice of intent to impose civil penalty and order imposing civil penalty are public records available for inspection and copying in accordance with Iowa Code chapter 22. Copies may be provided to the media, the National Council of Examiners for Engineering and Surveying, and other entities. Hearings shall be open to the public.

This rule is intended to implement Iowa Code section 542B.27.

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