

## ENGINEERING AND LAND SURVEYING EXAMINING BOARD

CHAPTER 1045  
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[Rules 1.5 to 1.13 were either rescinded or renumbered and new rules added, see IAB 8/14/85]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]

[Prior to 6/24/26, see Engineering and Land Surveying Examining Board[193C] Ch 1]

Chapter rescission date pursuant to Iowa Code section 17A.7: 4/10/29

**481—1045.1(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.

**1045.1(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 6200 Park Avenue, Suite 100, Des Moines, Iowa 50321, and requests or submissions may be directed to the secretary of the board at that location.

**1045.1(2) Meetings.** Regular meetings of the board are held in Des Moines, Iowa. Information concerning the location and dates for meetings may be obtained from the board's office at 6200 Park Avenue, Suite 100, Des Moines, Iowa 50321, or by telephoning 515.725.9022.

[ARC 7664C, IAB 3/6/24, effective 4/10/24; Editorial change: IAC Supplement 6/24/26]

**481—1045.2(542B) Definitions.** For the purposes of these rules, the following definitions 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 Iowa Code chapter 542B.

"*Design coordination*" means the same as defined in Iowa Code section 542B.2(2).

"*Engineering documents*" means the same as defined in Iowa Code section 542B.2(4).

"*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 the same as defined in Iowa Code section 542B.2(3).

"*In responsible charge*" means the same as defined in Iowa Code section 542B.2(6).

"*Land surveying documents*" means the same as defined in Iowa Code section 542B.2(7).

"*Practice of engineering*" means the same as defined in Iowa Code section 542B.2(9) "a" and "b."

1. The practice of engineering includes:

- Environmental engineering activities that 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 that constructs the fixtures.

2. 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*” means the same as defined in Iowa Code section 542B.2(10) and also includes 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 professional land surveyor as set out in Iowa Code section 542B.27.

“*Professional engineer*” means the same as defined in Iowa Code section 542B.2(11).

“*Professional land surveyor*” means a person who engages in the practice of land surveying as defined in this rule.

“*Written,*” when used to describe an examination, means a computer-based format.

[ARC 7664C, IAB 3/6/24, effective 4/10/24; Editorial change: IAC Supplement 6/24/26]

**481—1045.3(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 7—Chapter 2503.

[ARC 7664C, IAB 3/6/24, effective 4/10/24; Editorial change: IAC Supplement 6/24/26]

**481—1045.4(542B) Waivers.**

**1045.4(1)** The board’s rules regarding waivers can be found in the uniform rules for the division of professional licensing and regulation at 7—Chapter 2504.

**1045.4(2)** Interim rulings. The board chairperson, or vice chairperson if the chairperson is not available, may rule on a petition for waiver 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 7—Chapter 2504, 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 will 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 was filed in a contested case.

[ARC 7664C, IAB 3/6/24, effective 4/10/24; Editorial change: IAC Supplement 6/24/26]

**481—1045.5(542B) Licensed professional engineers and building construction.**

**1045.5(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 not in connection with new building construction and alterations to existing structures.

**1045.5(2)** *General guidelines.* Given the wide range of buildings covered by this rule and the unique issues that may arise with respect to specific buildings, it is not possible to establish definitive criteria that 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 necessitate 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 that 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 necessary.

**1045.5(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 481—Chapter 1065.

**1045.5(4)** *Definitions.* The definitions set forth in rule 481—1065.1(544A) apply to this rule.

**1045.5(5)** *Guidelines for new construction.* The following matrix describes by building type and use when the services of a licensed professional engineer are required in connection with new building construction:

<b>BUILDINGS NEW CONSTRUCTION</b>			
<b>Building Use Type</b>	<b>Description</b>	<b>Engineer Required</b>	<b>Engineer May Not Be Required</b>
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	

<b>BUILDINGS NEW CONSTRUCTION</b>			
<b>Building Use Type</b>	<b>Description</b>	<b>Engineer Required</b>	<b>Engineer May Not Be Required</b>
	More than 20,000 square feet in gross floor area	X	

**1045.5(6)** *Guidelines for alterations to existing buildings.* The following matrix describes by alteration type when the services of a licensed professional engineer are required in connection with alterations to existing buildings:

<b>ALTERATIONS TO EXISTING BUILDINGS</b>				
<b>Alteration Type</b>	<b>Description</b>		<b>Engineer Required</b>	<b>Engineer May Not Be Required</b>
Structural alterations to exempt buildings under Iowa Code section 544A.18	Modifications that 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 that change the structural members, means of egress, handicap accessible path, fire resistivity or other life safety concerns		X	
Nonstructural alteration	That does not modify means of egress, handicap accessible path, fire resistivity or other life safety concerns			X
	That maintains the previous type of use			X
Nonstructural alteration that 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	X	
and containing more than 12 family dwelling units		X		
Nonstructural alterations that 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

ALTERATIONS TO EXISTING BUILDINGS					
Alteration Type	Description		Engineer Required	Engineer May Not Be Required	
		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		
	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			

**1045.5(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 necessitate the services of an engineer if, for example:

*a.* There are structural elements that 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.

[ARC 7664C, IAB 3/6/24, effective 4/10/24; Editorial change: IAC Supplement 6/24/26]

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

[Filed 3/16/53; amended 1/19/54, 10/18/54, 6/15/56, 3/30/59,  
3/8/61, 6/14/61, 3/14/62, 5/8/69]

[Filed 12/16/75, Notice 11/3/75—published 1/12/76, effective 2/16/76]

[Filed 3/18/76, Notice 11/3/75—published 4/5/76, effective 5/10/76]

[Filed 4/1/77, Notice 12/29/76—published 4/20/77, effective 5/25/77]

[Filed 5/23/78, Notice 3/22/78—published 6/14/78, effective 8/1/78]

[Filed 7/26/78, Notice 5/3/78—published 8/23/78, effective 9/27/78]

[Filed emergency 10/3/78 after Notice 8/9/78—published 10/18/78, effective 10/3/78]

[Filed 1/4/79, Notice 10/18/78—published 1/24/79, effective 2/28/79]

[Filed 7/7/80, Notice 12/12/79—published 7/23/80, effective 8/27/80]

[Filed 8/12/81, Notice 4/29/81—published 9/2/81, effective 10/7/81]

[Filed 9/25/81, Notice 7/22/81—published 10/14/81, effective 11/18/81]

[Filed 8/11/83, Notice 5/25/83—published 8/31/83, effective 10/5/83]

[Filed 12/21/84, Notice 7/18/84—published 1/16/85, effective 2/20/85]

[Filed 3/8/85, Notice 1/16/85—published 3/27/85, effective 5/1/85]

[Filed 7/25/85, Notice 5/22/85—published 8/14/85, effective 9/18/85]

[Filed 9/5/85, Notice 7/31/85—published 9/25/85, effective 10/30/85]

[Filed 5/13/88, Notice 3/9/88—published 6/1/88, effective 7/6/88]

[Filed 5/13/88, Notice 4/6/88—published 6/1/88, effective 7/6/88]

[Filed 3/15/89, Notice 12/28/88—published 4/5/89, effective 5/10/89]

[Filed 6/6/89, Notice 4/5/89—published 6/28/89, effective 8/2/89]

[Filed 11/4/91, Notice 8/21/91—published 11/27/91, effective 1/1/92]

[Filed 7/29/92, Notice 5/13/92—published 8/19/92, effective 9/23/92]

[Filed 7/30/93, Notice 5/26/93—published 8/18/93, effective 9/22/93]

[Filed 11/4/94, Notice 6/22/94—published 11/23/94, effective 12/28/94]

[Filed 3/22/95, Notice 1/18/95—published 4/12/95, effective 5/17/95]

[Filed 1/26/96, Notice 11/22/95—published 2/14/96, effective 3/20/96]<sup>1</sup>

[Filed 5/2/96, Notice 1/3/96—published 5/22/96, effective 6/26/96]

[Filed 7/24/96, Notice 6/5/96—published 8/14/96, effective 9/18/96]

[Filed 10/18/96, Notice 8/14/96—published 11/6/96, effective 12/11/96]

[Filed 3/6/97, Notice 11/20/96—published 3/26/97, effective 4/30/97]

[Filed 3/6/97, Notice 1/1/97—published 3/26/97, effective 4/30/97]

[Filed 7/24/97, Notice 6/4/97—published 8/13/97, effective 9/17/97]

[Filed 9/5/97, Notice 6/18/97—published 9/24/97, effective 10/29/97]

[Filed 11/26/97, Notice 9/24/97—published 12/17/97, effective 1/21/98]

[Filed 2/6/98, Notice 12/3/97—published 2/25/98, effective 4/1/98]

[Filed 3/20/98, Notice 12/17/97—published 4/8/98, effective 5/13/98]

[Filed 3/20/98, Notice 1/28/98—published 4/8/98, effective 5/13/98]

[Filed 5/29/98, Notice 2/25/98—published 6/17/98, effective 7/22/98]

[Filed 8/20/98, Notice 7/15/98—published 9/9/98, effective 10/14/98]

[Filed 10/1/98, Notice 8/12/98—published 10/21/98, effective 11/25/98]

[Filed 11/4/98, Notice 6/17/98—published 12/2/98, effective 1/6/99]

[Filed 11/25/98, Notice 9/9/98—published 12/16/98, effective 1/20/99]

[Filed 4/15/99, Notice 3/10/99—published 5/5/99, effective 6/9/99]  
[Filed emergency 7/23/99 after Notice 6/16/99—published 8/11/99, effective 7/23/99]  
[Filed emergency 1/18/01 after Notice 11/29/00—published 2/7/01, effective 2/7/01]  
[Filed 10/24/01, Notice 8/8/01—published 11/14/01, effective 1/1/02]  
[Filed 9/12/02, Notice 6/12/02—published 10/2/02, effective 11/6/02]  
[Filed 11/21/02, Notice 10/2/02—published 12/11/02, effective 1/15/03]  
[Filed 9/24/04, Notice 5/12/04—published 10/13/04, effective 11/17/04]  
[Filed ARC 0362C (Notice ARC 0156C, IAB 6/13/12), IAB 10/3/12, effective 11/7/12]  
[Filed ARC 0684C (Notice ARC 0530C, IAB 12/12/12), IAB 4/17/13, effective 5/22/13]  
[Filed ARC 4206C (Notice ARC 3946C, IAB 8/15/18), IAB 1/2/19, effective 2/6/19]  
[Filed ARC 5953C (Notice ARC 5819C, IAB 8/11/21), IAB 10/6/21, effective 11/10/21]  
[Filed ARC 7664C (Notice ARC 7404C, IAB 1/10/24), IAB 3/6/24, effective 4/10/24]  
[Editorial change: IAC Supplement 6/24/26]

<sup>1</sup> Effective date of subrule 1.3(1) delayed 70 days by the Administrative Rules Review Committee at its meeting held March 11, 1996; delay lifted by this Committee at its meeting held May 14, 1996, effective May 15, 1996.