

## APPENDIX B—ENGINEERS MATRIX

**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:

<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 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	
	Outbuilding 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:

<b>ALTERATIONS TO EXISTING BUILDINGS</b>				
<b><i>Alteration Type</i></b>	<b><i>Description</i></b>	<b><i>Engineer Required</i></b>	<b><i>Engineer May Not Be Required</i></b>	
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	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 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	

<b>ALTERATIONS TO EXISTING BUILDINGS (CONT.)</b>					
<b>Alteration Type</b>		<b>Description</b>	<b>Engineer Required</b>	<b>Engineer May Not Be Required</b>	
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		
		Outbuilding 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 544S.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.