

Ordinances Governing  
**CONSTRUCTION**  
in the  
CITY OF ARLINGTON  
TEXAS

Amended by Ordinance No. 15-052  
(October 27, 2015)

(Chapter Designator: CONSTRUCTION)

**ORDINANCE HISTORY**

<b><u>Number</u></b>	<b><u>Date of Adoption</u></b>	<b><u>Comments</u></b>
88-82	06/07/88	
88-105	07/19/88	
89-43	04/18/89	
89-76	06/27/89	Revision of entire chapter; adoption of 1988 <u>Uniform Building Code</u> .
90-43	05/01/90	Amendment of <b>Article IX, Section 9.02, <u>Enclosure of Swimming Pools, Spas and Hot Tubs</u></b> , relative to fence requirements.
90-112	11/27/90	Amendment of <b>Article VII, Section 7.09, <u>Presumption</u></b> , relative to violations of location restrictions of signs on public property.
91-09	01/22/91	Amendment of <b>Section 4.03, <u>Application for Permit</u></b> , by the addition of a new <b>Subsection (G)</b> and the renumbering of the remaining subsection; amendment of <b>Section 4.06, <u>Validity of Permit</u></b> ; and amendment of <b>Section 4.13, <u>Inspections, Subsection (C)(3)</u></b> ; relative to deed restrictions and real property restrictive covenants.
92-06	01/14/92	Amendment of <b>Section 1.04, <u>Amendments, Additions and Deletions, Subsection (C)(13)</u></b> , providing for an exception to <b>Section 2516(g)(4)</b> , relative to the use of wood shingles and shakes as exterior wall coverings in Group R-1 occupancies.
92-35	04/07/92	Amendment of <b>Article IV, Section 4.01, <u>Registration, Subsection (B)</u></b> , relative to contractor's public liability insurance.
<a href="#"><u>92-62</u></a>	06/16/92	Addition of <b>Article XVII, <u>Dangerous Buildings</u></b> , providing for the definition of dangerous building;

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		providing for a public hearing; providing for a civil penalty of up to \$2,000 per day; and providing for abatement of dangerous buildings.
94-03	01/04/94	Repeal of <b>Article I</b> and adoption of new <b>Article I, Building Code</b> , relative to the adoption of the <u>1991 Uniform Building Code</u> ; Amendment of <b>Article IV, Section 4.04, Subsection (A), Plans and Specifications</b> , relative to exceptions for submission of plans; Amendment of <b>Article IV, Section 4.05, Building Permits Issued</b> , relative to acceptance of plans and specifications; Amendment of <b>Article IV, Section 4.15, Certificate of Occupancy</b> , relative to issuance of certificates; Amendment of <b>Article VII, Section 7.05, Unlawful Signs</b> , relative to authority to remove signs; Amendment of <b>Article VII, Section 7.09, Presumption</b> , relative to prima facie evidence for violations; Amendment of <b>Article IX, Section 9.02, Enclosure of Swimming Pools, Spas and Hot Tubs</b> , relative to requirements and offenses; and the Addition of <b>Article XVIII, Accessibility</b> , relative to requirements of buildings and facilities for accessibility to the physically challenged.
95-18	02/14/95	Amendment of <b>Article VII</b> by the addition of <b>Section 7.10, Temporary Signs Near Polling Places</b> , to regulate the size of temporary signs near polling places.
<a href="#">96-93</a>	07/02/96	Repeal of the existing <b>Article I</b> and adoption of a new <b>Article I, Building Code</b> , relative to the adoption of the <b>1994 Uniform Building Code</b> with certain deletions, amendments and addenda; Amendment of <b>Article II, Section 2.05, Procedure</b> , relative to the appointment of chairman and addition of a vice-chairman; Amendment of <b>Section 2.06, Appeals; Time Limit</b> , relative to making the ordinance gender neutral; Amendment of <b>Article III, Section 3.09, Other</b>

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<u>Number</u>	<u>Date of Adoption</u>	<u>Comments</u>
		<p><u>Relocations</u>, relative to making the ordinance gender neutral; Amendment of <b>Article IV, Section 4.01, Registration</b>, relative to the requirement of registration to construct or remove a sign, requirement for a notarized statement and the deletion of the requirement for contractor registration for minor accessory structures; Amendment of <b>Section 4.02, Permits Required</b>, relative to the requirement of a permit to construct or remove a sign; Amendment of <b>Section 4.03, Application For Permit, Subsection (F)</b>, relative to making the ordinance gender neutral; Amendment of <b>Section 4.04, Plans and Specifications</b>, relative to requiring computations be made available to the Building Official and changing the occupancy group "M" to "U"; Amendment of <b>Section 4.05, Building Permits Issued, Subsection (A)</b>, relative to the review of plans by certain City departments; Amendment of <b>Section 4.05(C)</b> relative to making the ordinance gender neutral; Amendment of <b>Section 4.07, Expiration of Permit</b>, relative to the fee for a new permit when the previous permit has expired due to suspension or abandonment of work; Amendment of <b>Section 4.12, Refunds</b>, relative to refunds of service charges; Amendment of <b>Section 4.13(C), Required Inspections</b>, relative to making the ordinance gender neutral; Amendment of <b>Section 4.13(D), Other Inspections</b>, relative to updating the section number to comply with the Uniform Building Code; Deletion of <b>Section 4.14, Special Inspections</b>, and the renumbering of <b>Section 4.15, Certificate of Occupancy</b>, to read as <b>Section 4.14, Certificate of Occupancy</b>, and creating exceptions to the use of occupancy requirements; by the renumbering of <b>Section 4.16, Indemnification</b>, to read as <b>Section 4.15, Indemnification</b>; Amendment of <b>Article VII, Section 7.02, Identification of Signs</b>, relative to deleting the requirement of posting the city permit on a sign; Amendment of <b>Section 7.04,</b></p>

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<u>Number</u>	<u>Date of Adoption</u>	<u>Comments</u>
		<p><u>Maintenance</u>, relative to deleting requirement of time requirements for painting of some signs; Amendment of <b>Section 7.06</b>, <u>Location Restrictions</u>, relative to providing authorization elsewhere in the code for signs; Amendment of <b>Section 7.07(B)</b>, <u>Wind Pressure</u>, relative to updating the section number to comply with the Uniform Building Code; Amendment of <b>Section 7.07(C)</b>, <u>Working Stresses</u>, relative to updating the section number to comply with the Uniform Building Code; Amendment of <b>Section 7.08</b>, <u>Use of Plastic Materials</u>, relative to the Uniform Building Code standards; Amendment of <b>Article IX, Section 9.01</b>, <u>Barbed Wire Fence</u>, relative to prohibiting razor wire fence within the city limits; Amendment of <b>Section 9.02</b>, <u>Enclosure of Swimming Pools, Spas and Hot Tubs</u>, relative to requiring compliance of swimming pool enclosures to meet the Texas Health and Safety Code and measurement of a wall around a swimming pool; Amendment of <b>Article XII, Section 12.01</b>, <u>Sanitary Sewer Connection During Construction</u>, relative to sanitary facilities for construction personnel; Amendment of <b>Article XIII, Section 13.02</b>, <u>Prohibited Acts, Subsection (C)</u>, relative to changing "the" to "this"; Amendment of <b>Section 13.03</b>, <u>Application for Permit, Subsection (C)</u>, relative to requirements of the Building Official; Amendment of <b>Section 13.08</b>, <u>Permit Denial or Revocation Hearing, Subsection (D)</u>, relative to making the ordinance gender neutral; Amendment of <b>Article XIV, Section 14.01</b>, <u>Application and Permit Requirements, Subsection (B)(2)</u>, relative to making the ordinance gender neutral; Amendment of <b>Article XVI, Section 16.02</b>, <u>Scope</u>, relative to updating the table and section number to comply with the Uniform Building Code; Amendment of <b>Article XVII, Section 17.02</b>, <u>Dangerous Building Defined</u>, relative to changing the 1991 Edition of Uniform Code for the Abatement of Dangerous</p>

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<u>Number</u>	<u>Date of Adoption</u>	<u>Comments</u>
		Building to read the 1994 Edition; Amendment of <b>Section 17.02(O)</b> , relative to making the ordinance gender neutral; Amendment of <b>Section 17.02(P)</b> , relative to making the ordinance gender neutral; Amendment of <b>Article XVIII</b> , entitled <u>Accessibility</u> , relative to accessibility standard requirements of the City.
<a href="#"><u>96-145</u></a>	11/05/96	Amendment of <b>Article I, Section 1.04, Amendments, Additions and Deletions, Subsection (C)</b> , relative to fire restrictive construction and relative to safety glazing of glass and renumbering the remaining subsections.
<a href="#"><u>97-90</u></a>	07/01/97	Amend <b>Article I, Section 1.05, Adoption of Appendices</b> , by the deletion of <b>Appendix C</b> ; amend <b>Article III, Section 3.02, Application for Registration and Permits</b> , at <b>Subsection (A), Registration Information Required</b> , by deletion of registration information that is in addition to the requirements as described in <b>Article IV</b> ; delete <b>Section 3.05, Notices To Be Given</b> , and renumbering the remaining sections; amend <b>Article XIV</b> , by the deletion of <b>Section 14.02, Bond Requirement</b> ; delete <b>Appendix "C"</b> .
<a href="#"><u>97-107</u></a>	07/29/97	Amend <b>Article I, Section 1.04, Amendments, Additions, and Deletions, Subsection (C)</b> , relative to Outdoor Swimming Pool Barriers and renumbering the remaining Subsections.
<a href="#"><u>98-141</u></a>	10/27/98	Repeal existing <b>Article I</b> and adopt a new <b>Article I, Building Code</b> , relative to the adoption of the <b>1997 Uniform Building Code</b> with certain deletions, amendments and addenda; Amend <b>Article III, Moved Buildings</b> , Amend <b>Section 3.09, Inspections</b> , relative to building mover requesting an inspection; Amend <b>Article IV, Registration, Permits and Inspection</b> ,

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<u>Number</u>	<u>Date of Adoption</u>	<u>Comments</u>
		<p><b>Section 4.01</b>, <u>Registration</u>, <b>Subsection (B)</b>, relative to the applicant providing information; Amend <b>Section 4.01</b>, <b>Subsection (F)</b>, relative to authority of the Building Code Board; Amend <b>Section 4.01</b>, <b>Subsection (I)</b>, relative to construction of fences; Amend <b>Section 4.05</b>, <u>Building Permits Issued</u>, <b>Subsection (A)</b>, relative to making the ordinance gender neutral; Amend <b>Section 4.06</b>, <u>Validity of Permit</u>, relative to lawful work or use; Amend <b>Section 4.14</b>, <u>Certificate of Occupancy</u>, <b>Subsection (C)</b>, relative to requirement for inspection and information provided; Amend <b>Article VI</b>, <u>Prefabricated or Modular Buildings</u>, by amending <b>Section 6.01</b>, <u>General</u>, relative to building inspection review; Amend <b>Article VII</b>, <u>Signs</u>, <b>Section 7.05</b>, <u>Unlawful Signs</u>, <b>Subsection (A)</b>, relative to violation of any city code; Amend <b>Section 7.07</b>, <u>Structural Requirements</u>, <b>Subsection (C)(1)</b>, relative to working stresses; Amend <b>Article XIII</b>, <u>Outdoor Festivals</u>, <b>Section 13.03</b>, <u>Application for Permit</u>, <b>Subsection (C)(8)</b>, relative to violation to the Health and Safety Code; Amend <b>Section 13.04</b>, <u>Reports</u>, <b>Subsection (B)</b>, relative to written reports to the building official; Amend <b>Section 13.06</b>, <u>Denial of Permit; Grounds</u>, <b>Subsection (A)(3)</b>, relative to violation of the Health and Safety Code; Delete <b>Article XVI</b>, <u>Life Safety Requirements for Existing Buildings</u>, and renumber remaining articles; Amend <b>Article XVII</b>, <u>Dangerous Buildings</u>, <b>Section 17.02</b>, <u>Dangerous Building Defined</u>, <b>Subsection (T)</b>, relative to partially constructed buildings; Delete <b>Article XVIII</b>, <u>Accessibility</u>.</p>
<a href="#">98-146</a>	11/10/98	<p>Amend <b>Article XIII</b>, <u>Outdoor Festivals</u>, <b>Section 13.03</b>, <u>Application for Permit</u>, <b>Subsection (B)</b>, relative to failure to timely file; Amend <b>Section 13.03</b>, <b>Subsection (C)</b>, relative to additional submissions the building official may require; Amend <b>Section 13.03</b>,</p>

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<u>Number</u>	<u>Date of Adoption</u>	<u>Comments</u>
<a href="#">99-42</a>	03/23/99	<p>by the deletion of <b>Subsection (D)</b>, and the relettering of remaining subsection; Amend <b>Section 13.04, Reports</b>, relative to which city departments receive notice of filing of permit application; Amend <b>Section 13.05, Conditions for Permit, Subsection (A)</b>, relative to restrictions imposed on the permittee; Amend <b>Section 13.05, Subsection (B)</b>, relative to insurance requirements; Amend <b>Section 13.05, Subsection (C)</b>, relative to bond requirements; Amend <b>Section 13.06, Denial of Permit; Grounds, Subsection (A)(3)</b>, relative to updating the reference to statute; Amend <b>Section 13.06</b> by the deletion of <b>Subsection (A)(10)</b> and the addition of new <b>Subsections (A)(10), (A)(11) and (A)(12)</b> relative to removing and adding grounds for denial; Amend <b>Section 13.07, Revocation of Permit</b>, relative to empowering certain city officials to revoke a permit after notice; Amend <b>Section 13.09, Permit Posting</b>, relative to the location and content of the posting; Add <b>Section 13.11, Penalty</b>, relative to the provision of a fine of up to <b>\$2,000</b> for each offense in violation of the ordinance.</p> <p>Amend <b>Article I, Building Code, Section 1.04, Amendments, Additions and Deletions</b>, by the addition of <b>Subsection (C)(57)</b>, amending Section 1006.3.3.1 of the Uniform Building Code, 1997 Edition; Repeal of the existing <b>Article XVI</b> and adoption of a new <b>Article XVI, Dangerous Buildings</b>, establishing procedures to meet the requirements of current enabling state law; Add <b>Article XVII, Additional Authority to Secure Building</b>, establishing procedures to meet the requirements of current enabling state law; Add <b>Article XVIII, Performance of Work and Recovery of Cost</b>, transferring said provisions out of the "Uniform Housing" Chapter and into this "Construction" Chapter to complete the procedures in conformance with state law.</p>

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<u>Number</u>	<u>Date of Adoption</u>	<u>Comments</u>
<a href="#">00-105</a>	09/12/00	Amend <b>Article IV</b> , <u>Registration, Permits and Inspections</u> , by the addition of <b>Section 4.16</b> , <u>Permits For Demolition or Relocation</u> , to clarify the process involved in obtaining a permit for the demolition or relocation of buildings or structures that are fifty (50) years old or older, or located in a Landmark Preservation ("LP") Overlay Zoning District.
<a href="#">02-020</a>	02/05/02	Repeal existing <b>Article I</b> and adopt a new <b>Article I</b> , <u>Building Code</u> , relative to the adoption of the 2000 International Codes including the 2000 International Building Code (I.B.C.), the 2000 International Residential Code (I.R.C.) and the 2000 International Energy Conservation Code (I.E.C.C.); Amend <b>Article IV</b> , <u>Registration, Permits and Inspections</u> , <b>Section 4.01</b> , <u>Registration</u> , <b>Subsections (F)(1) and (G)(4)</b> , to revise the Code from U.B.C. to I.B.C. and I.R.C.; Amend <b>Section 4.13</b> , <u>Refunds</u> , <b>Subsection (D)</b> , to revise the Code from U.B.C. to I.B.C. and add a reference to I.R.C.; Amend <b>Section 4.14</b> , <u>Certificate of Occupancy</u> , <b>Subsection (B)</b> , to revise the Code from U.B.C. to I.B.C.; Amend <b>Article VII</b> , <u>Signs</u> , <b>Section 7.07</b> , <u>Structural Requirements</u> , to revise the Code from U.B.C. to I.B.C.; Amend <b>Section 7.08</b> , <u>Use of Plastic Materials</u> , relative to requirements for plastic materials; Amend <b>Article IX</b> , <u>Fences</u> , <b>Section 9.02</b> , <u>Enclosure of Swimming Pools, Spas and Hot Tubs</u> , <b>Subsections (E) and (G)(2)</b> , to revise the appendix references; Amend <b>Article XIII</b> , <u>Outdoor Festivals</u> , <b>Section 13.04</b> , <u>Reports</u> , <b>Subsection (B)</b> , relative to updating the reference to the Health and Safety Code.
<a href="#">02-024</a>	02/12/02	Amend <b>Article I</b> , <u>Building Code</u> , by the addition of <b>Section 1.11</b> , <u>Trash Receptacles</u> , relative to regulations regarding the provision of trash receptacles at all job

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<u>Number</u>	<u>Date of Adoption</u>	<u>Comments</u>
		sites; Add <b>Section 1.12</b> , <u>Hours of Construction</u> , relative to setting hours of construction.
<a href="#">02-074</a>	07/16/02	Amend <b>Article IV</b> , <u>Registration, Permits and Inspections</u> , <b>Section 4.16</b> , <u>Permits for Demolition or Relocation</u> , <b>Subsection (A)(7)</b> , to modify the process through which the city council may extend the stay, increasing the total time that city council may impose the stay to ninety days, and increasing the maximum time period for a stay on a demolition permit to a cumulative total of one hundred fifty days.
<a href="#">03-087</a>	07/29/03	Amend <b>Article IV</b> , <u>Registration, Permits and Inspections</u> , <b>Section 4.14</b> , <u>Certificate of Occupancy</u> , by the addition of <b>Subsection G</b> , relative to permits, inspections, certificates and approvals for sexually oriented businesses.
<a href="#">04-004</a>	01/13/04	Amend <b>Article I</b> , <u>Building Code</u> , <b>Section 1.02</b> , relative to the addition of the 2001 Supplement to the International Energy Conservation Code; <b>Section 1.04(C)</b> , relative to amendments to the International Building Code; <b>Section 1.04(D)</b> , relative to amendments to the International Residential Code; <b>Section 1.04(E)(5)</b> , relative to amendments to the International Energy Conservation Code; <b>Section 1.06(B)</b> , relative to appeal of the Building Official's determination regarding an easement use agreement; <b>Section 1.06(C)</b> , relative to termination and modification of an easement use agreement; Amend <b>Article IV</b> , <u>Registration, Permits and Inspections</u> , <b>Section 4.01(I)</b> , relative to registration exemptions for owners; <b>Section 4.05</b> by the addition of <b>Subsection (D)</b> , relative to the issuance of a Field Permit Card; <b>Section 4.13(C)</b> , by the addition of a new <b>Subsection (3)</b> , relative to an energy inspection; <b>Section 4.14(C)</b> , relative to Sexually Oriented Businesses; <b>Section 4.14</b> ,

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		by the addition of <b>Subsection (H)</b> , relative to Applications for Certificates Of Occupancy; <b>Section 4.15</b> , relative to indemnification; <b>Section 4.16</b> , relative to dangerous building demolition and Municipal Court Authority; Amend <b>Article XVI</b> , <u>Dangerous Buildings</u> , relative to definitions, demolition hearings, Municipal Court hearing authority, enclosure of swimming pools, surety bonds, and City collection of expenses; Amend <b>Article XVII</b> , <u>Additional Authority to Secure Building</u> , relative to designation of Administrator; Amend <b>Article XVIII</b> , <u>Performance of Work and Recovery of Cost</u> , relative to collection of City expenses and liens.
<a href="#">04-042</a>	05/11/04	Amend <b>Article II</b> , <u>Building Code Board of Appeals</u> , <b>Section 2.01</b> , <u>Appointment</u> ; <b>Section 2.02</b> , <u>Term of Office</u> ; and <b>Section 2.03</b> , <u>Quorum</u> , relative to the appointment of Board Members.
<a href="#">04-075</a>	08/10/04	Amend <b>Article I</b> , <u>Building Code</u> , <b>Section 1.04</b> , <u>Amendments, Additions and Deletions</u> , <b>Subsection (D)(69)</b> , relative to swimming pools, spas and hot tubs; Amend <b>Article IV</b> , <u>Registration, Permits and Inspections</u> , <b>Section 4.14</b> , <u>Certificate of Occupancy</u> , relative to disconnection of electrical service.
<a href="#">04-086</a>	09/21/04	Amend <b>Article IV</b> , <u>Registration, Permits and Inspections</u> , <b>Section 4.07</b> , <u>Expiration of Permit</u> , relative to a fee for extension of an unexpired permit; <b>Section 4.10</b> , <u>Plan Review Fees</u> , relative to plan review fees; <b>Section 4.11</b> , <u>Expiration of Application and Plan Review</u> , relative to extension of an application; <b>Section 4.12</b> , <u>Refunds</u> , relative to refunds of building permit fees.
<a href="#">05-015</a>	02/22/05	Amend <b>Article I</b> , <u>Building Code</u> , <b>Section 1.04</b> , <u>Amendments, Additions and Deletions</u> , <b>Subsection</b>

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<u>Number</u>	<u>Date of Adoption</u>	<u>Comments</u>
		(D), by the addition of a new <b>Subsection (61)</b> relevant to lawn irrigation systems, and renumbering the remaining subsections.
<a href="#">05-060</a>	07/26/05	Amend <b>Article IV</b> , <u>Registration, Permits and Inspections</u> , <b>Section 4.05</b> , <u>Building Permits Issued</u> , <b>Subsection (A)</b> , by the addition of an exception relative to a third party provider; Amend <b>Section 4.13</b> , <u>Inspections</u> , <b>Subsection (A)</b> , by the addition of an exception relative to a third party provider.
<a href="#">05-068</a>	08/23/05	Amend <b>Article I</b> , <u>Building Code</u> , <b>Section 1.02</b> , <u>Adoption of Code</u> , relative to adoption of the 2003 International Building Code, 2003 International Residential Code, and 2003 International Energy Conservation Code; Amend <b>Section 1.04</b> , <u>Amendments, Additions and Deletions</u> , <b>Subsection (C)</b> , relative to adopting the 2003 International Building Code; <b>Subsection (D)</b> , relative to adopting the 2003 International Residential Code; and <b>Subsection (E)</b> , relative to adopting the 2003 International Energy Conservation Code.
<a href="#">06-018</a>	02/14/06	Amend <b>Article XIII</b> , <u>Outdoor Festivals</u> , <b>Section 13.10</b> , <u>Exception</u> , relative to providing that activities outside a major sports complex are exempt from Outdoor Festival permit requirements.
<a href="#">06-081</a>	08/22/06	Amend <b>Article I</b> , <u>Building Code</u> , <b>Section 1.04</b> , <u>Amendments, Additions and Deletions</u> , <b>Subsection (C)(77)</b> , <b>Section 2902</b> , <u>Minimum Plumbing Facilities</u> , and <b>Subsection 2902.6.1</b> , <u>Hand washing lavatory</u> , and <b>Subsection 2902.6.2</b> , <u>Service sink</u> ; Amend <b>Article XVI</b> , <u>Dangerous Buildings</u> , <b>Section 16.02</b> , <u>Definitions</u> , <b>Subsection (A)(1)</b> , and <b>Section 16.10</b> , <u>Notice to Vacate</u> , <u>Violations</u> , <b>Subsection (A)</b> , relative to

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<u>Number</u>	<u>Date of Adoption</u>	<u>Comments</u>
		updating the reference to the Community Services Department.
<a href="#">07-096</a>	12/18/07	Amend <b>Article XVI</b> , <u>Dangerous Buildings</u> , <b>Section 16.08</b> , <u>Liens for Penalties and Expenses</u> , <b>Subsection (A)</b> , relative to specifying fees; <b>Section 16.09</b> , <u>Notice and Collection of Penalty and Expenses</u> , <b>Subsection (A)</b> , relative to specifying fees; <b>Section 16.12</b> , <u>Swimming Pool Enclosures</u> , <b>Subsection (D)</b> , relative to specifying fees; amend <b>Article XVII</b> , <u>Additional Authority to Secure Building</u> , <b>Section 17.06</b> , <u>Liens and Collection of Expenses</u> , relative to specifying fees; amend <b>Article XVIII</b> , <u>Performance of Work and Recovery of Cost</u> , <b>Section 18.02</b> , <u>Account of Expense, Filing of Report: Contents</u> , relative to specifying fees.
<a href="#">08-090</a>	09/30/08	Amend <b>Article I</b> , <u>Building Code</u> , <b>Section 1.06</b> , <u>Construction Prohibited in Private Drainage and/or Public Easements</u> , <b>Subsection (B)</b> , related to fees for easement use agreements; amend <b>Article IV</b> , <u>Registration, Permits and Inspections</u> , <b>Section 4.02</b> , <u>Permits Required</u> , by the addition of regulations related to excavation, grading, and filling; and <b>Section 4.14</b> , <u>Certificate of Occupancy</u> , <b>Subsections (C)</b> , <b>(D)</b> , and <b>(F)</b> , related to certificates of occupancy; amend <b>Article VII</b> , <u>Signs</u> , <b>Section 7.10</b> , <u>Temporary Signs Near Polling Places</u> , <b>Subsection (A)</b> , related to temporary signs near polling places.
<a href="#">09-024</a>	05/05/09	Amend <b>Article I</b> , <u>Building Code</u> , <b>Section 1.03</b> , <u>Code Defined; Rule of Construction</u> , related to residential construction; <b>Section 1.04</b> , <u>Amendments, Additions and Deletions</u> , <b>Subsection (C)(74)</b> , related to retaining wall standards; and <b>Subsection 1.04(D)</b> , by the addition of <b>Subsection (43.5)</b> , related to corrugated stainless steel tubing; <b>Section 1.06</b> , <u>Construction Prohibited in Private Drainage and/or Public</u>

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<u>Number</u>	<u>Date of Adoption</u>	<u>Comments</u>
<a href="#">09-032</a>	06/23/09	<p><u>Easements</u>, related to easement use agreements; amend <b>Article IV</b>, <u>Registration, Permits and Inspections</u>, <b>Sections 4.01(I), 4.02, 4.05, 4.07, 4.08, and 4.11</b>, and the addition of <b>Sections 4.02.5, 4.05.5, and 4.11.5</b>, related to homeowner registration, site plans, posting of building permit at the job site, expiration of applications, plans, and permits, revocation of permits, and other miscellaneous minor changes; amend <b>Article XVI</b>, <u>Dangerous Buildings</u>, <b>Section 16.02</b>, <u>Definitions</u>, by the amendment of the definition of "Administrator" and the addition of the definition of "Hearing Authority"; by the addition of <b>Section 16.13</b>, <u>Requiring Repair, Removal, or Demolition of Structure</u>, relative to dangerous structures.</p>
<a href="#">09-056</a>	09/22/09	<p>Amend <b>Article II</b>, <u>Building Code Board of Appeals</u>, by the addition of <b>Section 2.09</b>, <u>Model Code Adoption or Amendment</u>, related to procedures for adopting or amending a model code.</p> <p>Amend <b>Article I</b>, <u>Building Code</u>, <b>Subsection 1.04</b>, <u>Amendments, Additions and Deletions</u>, by the deletion of <b>Subsection (C)(78)</b> and the renumbering of the remaining subsections; by the amendment of renumbered <b>Subsection (C)(78)</b>, relative to removing the definition of Swimming Pools; by the amendment of renumbered <b>Subsection (C)(79)</b>, relative to public swimming pools; by the amendment of renumbered <b>Subsection (C)(81)</b>, relative to entrapment avoidance; by the addition of a <b>Subsection (C)(83)</b> relative to Chapter 35, Reference Standards; through the amendment of <b>Section 1.04</b>, by the amendment of <b>Subsection (D)(75)</b>, relative to swimming pools, spas and hot tubs.</p>
<a href="#">10-009</a>	01/12/10	<p>Amend <b>Article I</b>, <u>Building Code</u>, by the amendment of <b>Section 1.08</b>, <u>Enforcement, Violations and Penalties</u>,</p>

## ORDINANCE HISTORY

<u>Number</u>	<u>Date of Adoption</u>	<u>Comments</u>
		relative to changing the title of the section and updating penalty provisions; and the amendment of <b>Section 1.13</b> , <u>Electronic Submittal of Final Plans</u> ; amend <b>Article IV</b> , <u>Registration, Permits and Inspections</u> , <b>Section 4.02.5</b> , <u>Application for Commercial Site Plan</u> , and <b>Section 4.04</b> , <u>Plans and Specifications</u> ; amend <b>Article VI</b> , <u>Prefabricated or Modular Buildings</u> , <b>Section 6.01</b> , <u>General</u> , amend <b>Article VII</b> , <u>Signs</u> , <b>Section 7.07</b> , <u>Structural Requirements</u> ; and <b>Article X</b> , <u>Emergency Locator Directory</u> , <b>Section 10.04</b> , <u>Information Required</u> , relative to a requirement that final plans or other documents that will be archived must be submitted in electronic format; amend <b>Article XIII</b> , <u>Outdoor Festivals</u> , by the deletion of <b>Section 13.11</b> , <u>Penalty</u> ; amend <b>Article XVI</b> , <u>Dangerous Buildings</u> , <b>Section 16.11</b> , <u>Other Enforcement</u> , <b>Subsection (E)</b> ; and by the addition of <b>Article XIX</b> , <u>Penalty</u> , relative to updated penalty provisions.
<a href="#">11-001</a>	01/14/11	Amend <b>Article XIII</b> , <u>Outdoor Festivals</u> , through the amendment of the title and the Article in its entirety.
<a href="#">11-019</a>	03/22/11	Amend <b>Article I</b> , <u>Building Code</u> , <b>Section 1.04</b> , <u>Amendments, Additions and Deletions</u> , <b>Subsection (D)(3)</b> , relative to adding the definition of "Reclaimed Water."
<a href="#">11-043</a>	08/16/11	Amend <b>Article XIX</b> through the addition of a new <b>Article XIX</b> , <u>Construction on Lake Arlington</u> , and renumbering the remaining article to <b>Article XX</b> , <u>Penalty</u> .
<a href="#">12-011</a>	04/03/12	Amend <b>Article XIX</b> , <u>Construction on Lake Arlington</u> , by the addition of <b>Section 19.02.01</b> , <u>Work Within Lake Arlington or the Flowage Easement</u> , and <b>Section 19.02.02</b> , <u>Appeals to Requirements of Section</u>

**ORDINANCE HISTORY**

<u>Number</u>	<u>Date of Adoption</u>	<u>Comments</u>
<a href="#">12-020</a>	04/24/12	<p><u>19.02.01</u>, relative to conforming to the Lake Arlington Master Plan; and by the amendment of <b>Section 19.05, Design and Construction Requirements for Piers and Boathouses, Subsections (B)(4) and (L)(4)</b>, relative to the 100 year flood elevation.</p> <p>Amend <b>Article I, Building Code, Section 1.02, Adoption of Code; Section 1.04, Amendments, Additions and Deletions, Subsections (B), (C), (D), and (E); and Section 1.05, Adoption of Appendices;</b> amend <b>Article IV, Registration, Permits and Inspections, Section 4.01, Registration, Subsection (F)</b>, by the addition of <b>Subsections (5) – (7); Subsection 4.01(H); Section 4.02, Commercial Site Plan and Permits Required; Section 4.03, Application for Permit, Subsection (E); Section 4.04, Plans and Specifications, Subsection (B); Section 4.05, Building Permits Issued; Section 4.12, Refunds</b>, by the amendment of the first paragraph and <b>Subsection (D); Section 4.13, Inspections, Subsections (A), (C), and (D); Section 4.14, Certificate of Occupancy; Subsections (A), (B), (C), and (F);</b> amend <b>Article VI, Prefabricated or Modular Buildings;</b> relative to adoption of the International Building Code, 2009 Edition; the International Residential Code, 2009 Edition; and the International Energy Conservation Code, 2009 Edition; amend <b>Article XVI, Dangerous Buildings, Section 16.11, Other Enforcement, Subsection (A);</b> delete <b>Section 16.11, Subsection (E);</b> amend <b>Section 16.13, Requiring Repair, Removal, or Demolition of Structure, Subsections (B)(7)(f) and (C);</b> relative to dangerous building violations and procedures.</p>
<a href="#">13-036</a>	08/20/13	<p>Amend <b>Article I, Building Code, Section 1.04, Amendments, Additions and Deletions, Subsection (C)</b>, by the addition of <b>Subsection (85.1);</b> and</p>

## ORDINANCE HISTORY

<u>Number</u>	<u>Date of Adoption</u>	<u>Comments</u>
		<b>Subsection (D)</b> , by the addition of <b>Subsection (19.1)</b> , relative to grading values of Southern Pine lumber.
<a href="#">13-037</a>	08/20/13	Amend <b>Article I</b> , <u>Building Code</u> , <b>Section 1.04, Amendments, Additions and Deletions</b> , <b>Subsection (D)</b> , by the addition of <b>Subsection (7.1)</b> , relative to revisions to Table R302.1 regarding the minimum fire separation distance for exterior walls to be constructed without a fire-resistance rating requirement.
<a href="#">13-055</a>	12/03/13	Amend <b>Article I</b> , <u>Building Code</u> , <b>Section 1.04, Amendments, Additions and Deletions</b> , <b>Subsection (D)</b> , by the addition of <b>Subsections (57.1), (57.2), (60.1), (60.2), (60.3), (60.4), (60.5), (60.6), (64.1), (64.2), (64.3), (64.4), (64.5), (64.6)</b> and <b>(64.7)</b> , relative to the Safe Drinking Water Act; amend <b>Article IV</b> , <u>Registration, Permits and Inspections</u> , <b>Section 4.02, Commercial Site Plan and Permits Required</b> , <b>Subsection (B)</b> , by the deletion of <b>Subsection (6)</b> and the renumbering of the remaining subsections; <b>Section 4.02, Subsection (C)(1)</b> , by the addition of <b>Subsection (b)</b> , relative to private property paving.
<a href="#">15-052</a>	10/27/15	Amend <b>Article XVI</b> , <u>Dangerous Buildings</u> , <b>Section 16.04, Commencement of Hearing</b> , <b>Subsection (B)</b> , relative to scheduling a hearing for a historic property; <b>Section 16.06, Contents of Order</b> , by the deletion of <b>Subsection (D)</b> and the relettering of the remaining subsections; and <b>Section 16.08, Liens for Penalties and Expenses</b> , <b>Subsection (B)</b> , relative to lien priority.

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**ARTICLE I**  
**BUILDING CODE**

**Section 1.01 Title**

This Chapter shall be known as the “Building Code” of the City of Arlington.

**Section 1.02 Adoption of Code**

The International Building Code, 2009 Edition (hereinafter called “I.B.C.”); the International Residential Code, 2009 Edition (hereinafter called “I.R.C.”); and the International Energy Conservation Code, 2009 Edition (hereinafter called “I.E.C.C.”); as published by the International Code Council, Inc. are hereby adopted and designated, together with the deletions, amendments and addenda hereinafter contained, as the Building Code of the City of Arlington, the same as though said I.B.C., I.R.C. and I.E.C.C. were copied at length herein. Copies of the I.B.C., I.R.C. and I.E.C.C. and its Appendices shall be kept on file in the Office of the City Secretary.

The adoption of the 2009 I.R.C. as stated herein except that Section R313 of the 2003 I.R.C., as amended and originally adopted on August 23, 2005 by Ordinance No. 05-068, to read as follows is maintained:

**R313.1 Fire sprinkler system.** All R3 and U occupancies are required to have an approved fire sprinkler system.

**EXCEPTION:** Buildings with an approved fire department access.

(Amend Ord 12-020, 4/24/12)

**Section 1.03 Code Defined; Rule of Construction**

This Building Code shall include all of the provisions of the I.B.C., I.R.C. and I.E.C.C. as adopted by Section 1.02 above and all other provisions contained herein. In the event a conflict is determined to exist between said I.B.C., I.R.C. and I.E.C.C. as adopted and the other provisions of this Chapter, the provisions of this Chapter control. Items regulated by permit located on residential lots that are not specifically referenced in the I.R.C. are regulated by the I.B.C. (Amend Ord 09-024, 5/5/09)

# CONSTRUCTION

## 1.04

### **Section 1.04 Amendments, Additions and Deletions**

The adoption of the I.B.C., I.R.C. and I.E.C.C., as provided in Section 1.02 above, is modified and amended by the following:

- A. The addition thereto of Articles II, et seq., of this Chapter.
- B. The deletion in the entirety of the following provisions of the I.B.C., I.E.C.C., and I.R.C.:
  1. Section 105 I.B.C. and R105 I.R.C., entitled Permits;
  2. Delete Section 107 I.B.C. entitled Submittal Documents and 106 I.R.C. entitled Construction Documents.
  3. Section 109 I.B.C. and R108 I.R.C. and 107 I.E.C.C, entitled Fees;
  4. Section 110 I.B.C. and R109 I.R.C., entitled Inspections; and
  5. Section 111 I.B.C. and R110 I.R.C., entitled Certificate of Occupancy.
  6. Section 113 I.B.C. and R112 I.R.C. and 109 I.E.C.C, entitled Board of Appeals;
  7. Section 114 I.B.C. and R113 I.R.C., entitled Violations;
  8. Section 116 I.B.C., entitled Unsafe Structures and Equipment;
  9. Section 2503 I.B.C., entitled Inspection;
  10. Chapters 34 through 43 I.R.C. (Amend Ord 12-020, 4/24/12)
- C. The amendment of the following I.B.C. provisions:
  1. The amendment of Section 101, entitled Title., to read as follows:

These regulations shall be known as the Building Code of the City of Arlington, Texas, hereinafter referred to as “this code.”
  2. The amendment of the exceptions to Section 101.2, entitled Scope., to read as follows:

**EXCEPTIONS:**

    1. Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade plane in height with a separate means of egress and their accessory structures shall comply with the International Residential Code.
    2. Portable and/or temporary storage buildings not exceeding three hundred twenty (320) square feet in area shall not be subject to the

provisions of this Building Code for foundations and framing provided:

- (a) The building shall not be intended or used for human occupancy;
  - (b) No plumbing and/or mechanical improvements shall be permitted and any electrical improvements are supervised by permits and work shall be installed in full compliance with the appropriate Chapter of the Code of the City of Arlington for such work; and
  - (c) A permit for such building shall have been obtained from the Building Official.
3. The amendment of Section 101.4, entitled Referenced Codes., to read as follows:

**101.4 Referenced Codes.** The other codes listed in Sections 101.4.1 through 101.4.7 and referenced elsewhere in this code, when specifically adopted, shall be considered part of the requirements of this code to the prescribed extent of each such reference. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the amendments as well. Any reference to NFPA 70 or the ICC Electrical Code shall mean the Electrical Code as adopted.

4. The addition of Section 101.4.7, entitled Electrical., to read as follows:

**101.4.7 Electrical.** The provisions of the Electrical Code shall apply to the installation of electrical systems, including alterations, repairs, replacement, equipment, appliances, fixtures, fittings and appurtenances thereto.

5. The amendment of Section 103.1, entitled Creation of Enforcement Agency., to read as follows:

**103.1 Creation of enforcement agency.** The Building Inspections Division is hereby created and the official in charge thereof shall be known as the Building Official.

## CONSTRUCTION

### 1.04

6. The amendment of Section 104.6, entitled Right of Entry., to read as follows:

Where it is necessary to make an inspection to enforce any of the provisions of this Building Code, or whenever the Building Official or an authorized representative has reasonable cause to believe that there exists in any building or upon any premises any condition or violation which makes such building or premises unsafe, dangerous or hazardous, the Building Official or an authorized representative may enter such building or premises at all reasonable times to inspect the same or to perform any duty imposed upon said Building Official by this Building Code. If such building or premises be occupied, the Building Official shall first present proper credentials and request entry. If such building or premises be unoccupied, the Building Official shall first make a reasonable effort to locate the owner or other person having charge or control of the building or premises and request entry. If such entry is refused, or, if no owner or other person having charge or control of the building or premises can be located, the Building Official or an authorized representative shall have recourse to every remedy provided by law to secure entry.

7. The addition of Section 104.12, entitled Occupancy Violations., to read as follows:

**104.12 Occupancy Violations.** Whenever any building, structure, or equipment therein which is regulated by this Building Code is being used contrary to the provisions of said Code, the Building Official or an authorized representative may order that such use be discontinued and/or that the building or structure, or a portion thereof, be vacated by written notice served on any person who is causing such use to be continued. Further, the Building Official or an authorized representative may order the evacuation of any building or premises, or a portion thereof, which constitutes a dangerous building as defined in Article XVI of this Chapter.

Notice to stop use shall be given by personal delivery or by certified mail, return receipt requested, to the person responsible for the continued use. Such person shall discontinue the use within the time prescribed by the Building Official after receipt of such notice and shall not resume the use of the building or premises until first rendering the same in compliance with this Building Code.

Notice to vacate a dangerous building or premises shall be posted at or upon each exit of the said structure affected thereby, and shall be in substantially the following form:

“DO NOT ENTER  
UNSAFE TO OCCUPY

It is a misdemeanor to occupy this building,  
or to remove or deface this notice.

Arlington Building Official

(by) \_\_\_\_\_  
(date) \_\_\_\_\_  
(compliance due date) \_\_\_\_\_”

No person shall remain in or enter any building or premises which has been so posted, except that entry may be made to repair, demolish or remove the unsafe condition. Such entry or the destruction, defacing or removal of said notice prior to approval by the Building Official or an authorized representative shall be a violation of this Building Code.

8. The amendment of Section 115, entitled STOP WORK ORDER, to read as follows:

**115 STOP WORK ORDER**

**115.1 Stop Work Order.** Whenever any work is being done contrary to the provisions of this Code, the Building Official may order the work stopped by notice in writing served on any persons engaged in the doing or causing such work to be done. Any such person shall forthwith stop such work until:

- a. He or she is authorized by the Building Official to proceed with the work; or
- b. An appeal perfected pursuant to Section 2.06 of Article II has resulted in a waiver of the condition causing the stop order, or a finding that there is no cause for a stop order.

# CONSTRUCTION

## 1.04

Failure to stop such work, in addition to penalties and remedies elsewhere set forth, shall void any appeal.

9. The amendment of Section 202 by amending the definition of “AMBULATORY HEALTH CARE” to read as follows:

**AMBULATORY HEALTH CARE FACILITY.** Buildings or portions thereof used to provide medical, surgical, psychiatric, nursing or similar care on a less than 24-hour basis to individuals who are rendered incapable of self-preservation. This group may include but not necessarily be limited to the following:

- Dialysis centers
- Sedation dentistry
- Surgery centers
- Colonic centers
- Psychiatric centers

10. The amendment of Section 202 adding the definition of “SHALL” to read as follows:

**SHALL**, as it applies to an act or duty to be performed by the Building Official pursuant to any section of this Building Code, is discretionary. Its use in all other applications in this Code shall be mandatory.

11. The amendment of Section 304.1, entitled Business Group B., to read as follows:

**304.1 Business Group B.** Business Group B occupancy includes, among others, the use of a building or structure, or a portion thereof, for office, professional or service-type transactions, including storage of records and accounts. Business occupancies shall include, but not be limited to, the following:

- Airport traffic control towers
- Ambulatory health care facilities
- Animal hospitals, kennels and pounds
- Banks
- Barber and beauty shops
- Car wash
- Civic administration
- Clinic—outpatient
- Dry cleaning and laundries; pick-up and delivery stations and self-service

Educational occupancies above the 12<sup>th</sup> grade  
Electronic data processing  
Fire Stations  
Laboratories; testing and research  
Motor vehicle showrooms  
Police stations with detention facilities for 5 or less  
Post offices  
Print shops  
Professional services (architects, attorneys, dentists, physicians, engineers, etc.)  
Radio and television stations  
Restaurants with no dine-in facilities (take-out or delivery only)  
Telephone exchanges

12. Amend Exception number 4 to Section 307.1, entitled High-hazard Group H, to read as follows:

4. Cleaning establishments that utilize combustible liquid solvents having a flash point of 140°F (60°C) or higher in closed systems employing equipment listed by an approved testing agency, provided that this occupancy is separated from all other areas of the building by 1-hour fire barriers constructed in accordance with Section 707 or 1-hour horizontal assemblies constructed in accordance with Section 712, or both. See also Chapter 12. Dry Cleaning Plant provision of the Fire Code.

13. Amend Section 310.1, Residential Group R., more specifically the paragraphs entitled **R-3** to read as follows:

**R-3** Residential occupancies where the occupants are primarily permanent in nature and not classified as R-1, R-2, R-4 or I, including:

Buildings that do not contain more than two *dwelling units*.

Adult care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours.

Child care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours.

Congregate living facilities with 16 or fewer persons.

Adult care and child care facilities with five or fewer unrelated persons that are within a single-family home are permitted to comply with the International Residential Code.

14. Amend 311.2 to add the use classification “Self Service Storage Facility.”

# CONSTRUCTION

## 1.04

15. The amendment of Section 403.1, Exception #3, to read as follows:
  3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1, when used for open air seating; however, this exception does not apply to accessory uses including but not limited to sky boxes, restaurants and similarly enclosed areas.
16. The amendment of Section 403.3, entitled Automatic sprinkler system., by the deletion of Exception #2.
17. The amendment of Section 404.1.1, entitled Definition., to read as follows:

### **404.1.1 Definition.**

**ATRIUM.** An opening connecting three or more stories other than enclosed stairways, elevators, hoistways, escalators, plumbing, electrical, air-conditioning or other equipment, which is closed at the top and not defined as a mall. Stories, as used in this definition, do not include balconies within assembly groups or mezzanines that comply with Section 505.

18. The amendment of Section 404.5, entitled Smoke control, by the deletion of the Exception.
19. The amendment of Section 406.1.4, entitled Separation., by the addition of paragraph 4 to read as follows:
  4. A separation is not required between a Group R-2 and U carport provided that the carport is entirely open on all sides and that the distance between the two is at least 10 feet (3048 mm).
20. The amendment of Section 406.6.1, entitled General., by the addition of a second paragraph to read as follows:

This occupancy shall include garages involved in servicing of motor vehicles for items such as lube changes, inspections, windshield repair or replacement, shocks, minor part replacement and other such non-major repair. When the repair garage is only involved in such minor repair, it need not comply with Section 406.6.2.

21. The amendment of the exception to Section [F]411.4, entitled Automatic sprinkler system., to read as follows:

**EXCEPTION:** An automatic sprinkler system need not be provided for amusement buildings actually operating not more than thirty (30) consecutive days.

22. The amendment of Section 411.7.1, entitled Photo luminescent exit signs., to read as follows:

**411.7.1 Photo luminescent exit signs.** Photo luminescent exit signs are prohibited.

23. The amendment of Section [F]416.5 entitled Fire protection., to read as follows:

**[F]416.5 Fire protection.** An automatic fire-extinguishing system shall be provided in all spray, dip and immersing spaces and storage rooms and shall be installed in accordance with Chapter 9 for both existing and new spray, dip and immersing spaces and storage rooms.

24. The amendment of Section 506.2.2, entitled Open space limits., to read as follows:

**506.2.2 Open space limits.** Such open space shall be either on the same lot or dedicated for public use and shall be accessed from a street or *approved fire lane*. In order to be considered as accessible, if not in direct contact with a street or an *approved fire lane*, a minimum ten (10) foot wide pathway adjoining fire department access from the street or *approved fire lane* shall be provided.

25. The amendment of Section 508.2.5, entitled Separation of incidental accessory occupancies., to read as follows:

**508.2.5 Separation of incidental accessory occupancies.** The incidental accessory occupancies listed in Table 508.2.5 shall be separated from the remainder of the building or equipped with an automatic fire extinguishing system, or both, in accordance with Table 508.2.5. An incidental accessory occupancy shall be classified in accordance with the occupancy classification of that portion of the building in which it is located.

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**Exception:** Incidental accessory occupancies within and serving a *dwelling unit* are not required to comply with this section.

26. The amendment of Table 602, entitled FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE<sup>ac</sup>, to insert footnote h. to the heading “OCCUPANCY GROUP A, B, E, F-2, I, R<sup>h</sup>, S-2<sup>g</sup>, U<sup>bh</sup>” to read as follows:

h. For one- and two-family dwellings and apartment buildings, open metal carport structures may be constructed within zero (0) feet of the property line without fire-resistive or opening protection when the location of such is approved as required by other City ordinances.

27. The amendment of Exception 7 to Section 708.2, entitled Shaft enclosure required., to read as follows

7. In other than Groups I-2 and I-3, a shaft enclosure is not required for a floor opening or an air transfer opening that complies with the following:

7.1. Does not connect more than two stories.

7.2. Is not part of the required means of egress system except as permitted in Section 1022.1.

7.3. Is not concealed within the building construction of a wall or a floor/ceiling assembly.

7.4. Is separated from floor openings serving other floors by construction conforming to required shaft enclosures.

7.5. Is limited to the same smoke compartment.

28. The amendment of Section 902.1, entitled Definitions., by the amendment of the definition of “[F]STANDPIPE, TYPES OF,” under “Manual dry” to read as follows:

**Manual dry.** A dry standpipe system that does not have a permanent water supply attached to the system. Manual dry standpipe systems require water from a fire department pumper to be pumped into the system through the fire department connection in order to supply the system demand. The system must be supervised as specified in Section 905.9.

29. The addition of Section 903.2.1.6, entitled Special amusement building, to read as follows:

[F]903.2.1.6 Special amusement building. Special amusement buildings shall be equipped throughout with an automatic sprinkler system.

EXCEPTION: An automatic sprinkler system need not be provided when an amusement building shall be in existence less than 30 days and when the construction and use is approved by the Fire Code Official or authorized representative.

30. The amendment of item #2 under Section [F]903.2.4, entitled Group F-1., to read as follows:

2. A Group F-1 *fire area* is located more than two stories above grade plane.

31. The amendment of Section [F]903.2.7, entitled Group M., to read as follows:

**[F]903.2.7 Group M.** An automatic sprinkler system shall be provided throughout buildings containing a Group M occupancy where one of the following conditions exists:

1. A Group M fire area exceeds 12,000 square feet (1115 m<sup>2</sup>).
2. A Group M fire area is located more than three stories above grade plane.
3. The combined area of all Group M fire areas on all floors, including any mezzanines, exceeds 24,000 square feet (2230 m<sup>2</sup>).

32. The addition of Section [F]903.2.9.3, entitled Self-service storage facility., to read as follows:

**[F]903.2.9.3 Self service storage facility.** An automatic sprinkler system shall be installed throughout all self-service storage facilities.

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**EXCEPTION:** One story self-service storage facilities, that have no interior corridors, with a one-hour fire barrier wall installed between every storage compartment.

33. The amendment of Section [F]903.2.11.3, entitled Buildings 55 feet or more in height., to read as follows:

**[F]903.2.11.3 Buildings over two stories in height.** An automatic sprinkler system shall be installed throughout buildings, other than penthouses in compliance with Section 1509 of the International Building Code, that is located 55 feet or more above the lowest level of fire department vehicle access.

**EXCEPTION:** Open parking structures in compliance with Section 406.3.

34. The addition of Section [F]903.2.11.7, entitled High-Piled Combustible Storage., to read as follows:

**[F]903.2.11.7 High-Piled Combustible Storage.** For any building with a clear height exceeding 12 feet (4572 mm), see Chapter 23 of the Fire Code to determine if those provisions apply.

35. The addition of Section [F]903.2.11.8, entitled Spray Booths and Rooms., to read as follows:

**[F]903.2.11.8 Spray Booths and Rooms.** New and existing spray booths and spraying rooms shall be protected by an approved automatic fire-extinguishing system.

36. The amendment of Section [F]903.3.1.1.1, entitled Exempt locations., to read as follows:

**[F]903.3.1.1.1 Exempt locations.** When approved by the fire code official, automatic sprinklers shall not be required in the following rooms or areas where such rooms or areas are protected with an approved automatic fire detection system in accordance with Section 907.2 that will respond to visible or invisible particles of combustion. Sprinklers shall not be omitted from any room merely because it is damp, of fire-resistance-rated construction or contains electrical equipment.

1. Any room where the application of water, or flame and water, constitutes a serious life or fire hazard.
  2. Any room or space where sprinklers are considered undesirable because of the nature of the contents, when approved by the code official.
  3. Generator and transformer rooms, under the direct control of a public utility, separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire-resistance rating of not less than two hours.
37. The amendment of Section [F]903.3.1.2, entitled NFPA 13R sprinkler systems., to read as follows:
- [F]903.3.1.2 NFPA 13R sprinkler system.** Required automatic sprinkler systems in Group R occupancies of four stories or less may be hydraulically calculated within the dwelling units in accordance with NFPA 13R and as amended by this code. Sprinkler protection shall be provided throughout, including the means of egress, patios, bathrooms, closets, balconies and attics.
38. The amendment of Section [F]903.3.1.3, entitled NFPA 13D sprinkler systems., to read as follows:
- [F]903.3.1.3 NFPA 13D sprinkler systems.** Non-required automatic sprinkler systems in one and two-family dwellings and manufactured homes may be installed in accordance with NFPA 13D or in accordance with state law.
39. The amendment of Section [F]903.3.5, entitled Water supplies., to add a second paragraph to read as follows:
- Water supply as required for such systems shall be provided in conformance with the supply requirements of the respective standards; however, every fire protection system shall be designed with a 10 psi safety factor.
40. The addition of Section [F]903.3.7, entitled Fire department connections., to read as follows:

**[F]903.3.7 Fire department connections.** The location of fire department connections shall be approved by the Fire Code Official. All fire department connections in the City of Arlington shall be 4" Storz connections. The permanent Storz adapter shall be constructed of high strength, light weight, corrosion resistant aluminum alloy capable of being securely attached to standpipe/sprinkler outlets designed for fire department Storz connections. The Storz lug connection shall conform to industry standards. The hose sealing surface shall consist of a machined metal seat to eliminate rubber gaskets, coated to protect against long term exposure to the environment. The Storz connection shall connect to the pipe outlet using National Standard Thread. The connection shall be angled downward at a 30° angle. A semi-permanent ¼" mesh screen shall be provided inside the Storz adapter, constructed of corrosion resistant metal. A 4" Storz aluminum cap with chain or cable shall be provided for the fire department connection. For each additional 1500 G.P.M. required or fraction thereof an additional 4" Storz connection is required.

41. The amendment of Section [F]903.4, entitled Sprinkler system supervision and alarms., to read as follows:

**[F]903.4 Sprinkler system supervision and alarms.** All valves controlling the water supply for automatic sprinkler systems and water-flow switches on all sprinkler systems shall be electrically supervised and monitored by a UL listed Central Station. The fire-pump system shall also be supervised and monitored for "power available," "phase reversal" and "pump running" conditions on distinct circuits.

**EXCEPTIONS:**

1. Automatic sprinkler systems protecting one-and two-family dwellings.
2. Limited area systems serving fewer than 20 sprinklers.
3. Jockey pump control valves that are sealed or locked in the open position.

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tempering.

42. The amendment of Section [F]903.4.2, entitled Alarms., to read as follows:

**[F]903.4.2 Alarms.** Approved audible devices shall be connected to every automatic sprinkler system. Such sprinkler water-flow devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Alarm devices shall be provided on the exterior of the building in an approved location. An approved audible/visible sprinkler flow alarm to alert the occupants shall be provided in the interior of the building in a normally occupied location. Where a fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system.

43. The amendment of Section [F]903.4.3, entitled Floor control valves., to read as follows:

**[F]903.4.3 Floor control valves.** Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow.

44. The addition of Section [F]903.6., entitled Spray booths and rooms., to read as follows:

**[F]903.6. Spray booths and rooms.** New and existing spray booths and spray rooms shall be protected by an approved automatic fire extinguishing system in accordance with Section 1504.4 of the International Fire Code.

45. The addition of Section [F]905.2, entitled Installation standards., to read as follows:

**[F]905.2 Installation standards.** Standpipe systems shall be installed in accordance with this section and NFPA 14. Manual dry standpipe systems shall be supervised with a minimum of 10 psig and a maximum of 40 psig air pressure with a high/low alarm.

46. The amendment of Section [F]905.3.2, entitled Group A, to delete Exceptions #1 and #2.

47. The amendment of Section 905.4, entitled Location of Class I standpipe hose connections., by revising item #5 to read as follows:

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5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3-percent slope), each standpipe shall be provided with a two-way hose connection located either on the roof or at the highest landing of stairways with stair access to the roof. An additional hose connection shall be provided at the top of the most hydraulically remote standpipe for testing purposes.
48. The amendment of Section [F]905.9, entitled Valve supervision, to add a second paragraph after the exceptions to read as follows:

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

49. The amendment of Section [F]906.1, entitled Where Required, by the deletion of the Exception to paragraph #1.
50. The addition of Sections [F]907.1.2.1, [F]907.1.2.2 and [F]907.1.2.3 to read as follows:

**[F]907.1.2.1 Fire alarm control panel.** The fire alarm control panel shall be installed in an approved location adjacent to the main entrance to the building unless otherwise approved by the Fire Code Official.

**[F]907.1.2.2 Key/Codes.** Fire alarm control panel functions such as silence and reset shall be operable without the use of a key or code. The panel cover may be locked, but the function keys cannot require a key or code.

**[F]907.1.2.3 Alarm verification.** Alarm verification shall be provided for smoke detectors. Alarm verification shall be provided at the fire alarm control panel when more than thirty (30) detectors are installed.

**EXCEPTION:** Alarm verification is not required for single station type smoke detectors.

51. The addition of Section [F]907.1.4, entitled Design Standards, to read as follows:

**[F]907.1.4 Design Standards.** Fire alarm systems, automatic fire detectors, emergency voice alarm communication systems and notification devices shall be designed, installed and maintained in accordance with NFPA 72 and local amendments. All alarm systems new or replacement serving 50 or more alarm actuating devices shall be addressable fire detection systems. Alarm systems serving more than 75 smoke detectors or more than 200 total alarm activating devices shall be analog intelligent addressable fire detection systems.

**EXCEPTION:** Existing systems need not comply unless the total building remodel or expansion initiated after January 1, 1998 exceeds 30% of the building. When cumulative building remodel or expansion exceeds 50% of the building must comply within 18 months of permit application.

52. The amendment of Section [F]907.2.3, entitled Group E, to read as follows:

**[F]907.2.3 Group E.** A manual fire alarm system shall be installed in Group E educational occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system.

An approved smoke detection system shall be installed in Group E day care occupancies.

Unless separated by a minimum of 100' open space, all buildings, whether portable buildings or the main building, will be considered one building for alarm occupant load consideration and interconnection of alarm systems.

**EXCEPTIONS:**

1. Group E educational and day care occupancies with an occupant load of less than 50 when provided with an approved automatic sprinkler system.
  - 1.1. Portable/Temporary buildings in Group E Educational occupancies with manual fire alarm systems are not required to be connected to the alarm system in the main building.

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- 1.2. Residential in-home day care with not more than 12 children may use interconnected single station detectors in all habitable rooms. (For care of more than five children 2½ or less years of age, see Section 907.2.6.)
2. Manual fire alarm boxes are not required in Group E occupancies where all of the following apply:
  - 2.1. Interior corridors are protected by smoke detectors.
  - 2.2. Auditoriums, cafeterias, gymnasiums and similar areas are protected by heat detectors or other approved detection devices.
  - 2.3. Shops and laboratories involving dusts or vapors are protected by heat detectors or other approved detection devices.
  - 2.4. The capability to activate the evacuation signal from a central point is provided.
  - 2.5. In buildings where normally occupied spaces are provided with a two-way communication system between such spaces and a constantly attended receiving station from where a general evacuation alarm can be sounded, except in locations specifically designated by the fire code official.
3. Manual fire alarm boxes shall not be required in Group E occupancies where the building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, the notification appliances will activate on sprinkler waterflow and manual activation is provided from a normally occupied location.
53. The amendment of Section [F]907.2.7, entitled Group M, by the deletion of Section 907.2.7.1, entitled Occupant Notification.
54. The addition of Section [F]907.2.8.4, entitled Carbon Monoxide Detectors., to read as follows:

**[F]907.2.8.4 Carbon Monoxide Detectors.** In new and existing hotels and motels, carbon monoxide detectors shall be provided in all locations where there is gas-fired equipment, such as, but not limited to, dryers, HVAC, or hot water heaters. When the building is equipped with a fire

alarm system, the carbon monoxide detectors shall be connected in such a manner as to cause the Fire Alarm system to sound an alarm when the carbon monoxide goes into alarm.

55. The amendment of Section [F]907.2.9.1, entitled Manual fire alarm systems., to read as follows:

**[F]907.2.9.1 Manual Fire Alarm Systems.** Manual fire alarm boxes are prohibited in Group R-2 apartment houses less than four (4) stories in height.

56. The amendment of Section [F]907.2.13, entitled High- rise buildings., Exception #3, to read as follows:

3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the International Building Code, when used for open air seating; however, this exception does not apply to accessory uses, including but not limited to sky boxes, restaurants and similarly enclosed areas.

57. The amendment of Section [F]907.4.2, entitled Manual fire alarm boxes., to add a second paragraph to read as follows:

Manual alarm actuating devices shall be an approved double action type.

58. The addition of Section [F]907.6.1.1 entitled Installation., to read as follows:

**[F]907.6.1.1 Installation.** All fire alarm systems shall be installed in such a manner that the failure of any single alarm-actuating or alarm-indicating device will not interfere with the normal operation of any other such devices. All systems shall be Class “A” wired with a minimum of six feet separation between supply and return loops. IDC – Class “A” style – D – SLC Class “A” Style 6 – notification Class “B” Style Y.

59. The amendment of [F]907.6.3, entitled Zones., to read as follows:

**[F]907.6.3 Zones.** Each floor shall be zoned separately and a zone shall not exceed 22,500 square feet (1860 m<sup>2</sup>). The length of any zone shall not exceed 300 feet (91 440 mm) in any direction. A maximum of one (1) water flow switch or three (3) tamper switches, five (5) pull stations or ten (10) smoke or heat detectors may be interconnected to be upon a single zone of a fire alarm control panel.

**Exceptions:**

1. Automatic sprinkler system zones shall not exceed the area permitted by NFPA 13.
  2. Addressable systems.
60. The amendment of [F]907.6.3.2, entitled High-rise buildings., to read as follows:

**[F]907.6.3.2 High-rise buildings.** In buildings that have floors located more than 75 feet (16 764 mm) above the lowest level of fire department vehicle access, a separate zone by floor shall be provided for all of the following types of alarm-initiating devices where provided:

1. Smoke detectors.
2. Sprinkler water-flow.
3. Manual fire alarm boxes.
4. Other approved types of automatic fire detection devices or suppression systems.

**Exception:**

Addressable systems

61. The amendment of Section [F]907.6.5, entitled Monitoring., to read as follows:

**[F]907.6.5 Monitoring.** Where required by this chapter, an approved UL listed central station in accordance with NFPA 72 shall monitor fire alarm systems.

**Exception:** Supervisory service is not required for automatic sprinkler systems in one- and two-family dwellings.

62. The addition of Section [F]907.6.5.2, entitled Local alarm system., to read as follows:

**[F]907.6.5.2 Local alarm system.** When an automatic fire alarm system is not monitored by an approved central station alarm company, an external weatherproof, audible/visual alarm sounding device shall be provided in an approved location with an approved sign, with a minimum of four-inch (4”) letters, reading “WHEN ALARM SOUNDS, CALL FIRE DEPARTMENT” adjacent to the alarm-sounding device.

An approved permanent sign reading “LOCAL ALARM ONLY – CALL FIRE DEPARTMENT” shall be provided on or adjacent to the fire alarm control panel and all manual fire alarm pull stations.

63. The amendment of Section 1007.1, entitled Accessible means of egress required., to add exception #4 to read as follows:
4. Projects registered with the Architectural Barriers Division of the Texas Department of Licensing and Regulation shall be deemed to be in compliance with the requirements of Section 1007.

64. The amendment of Section 1008.1.4.4, entitled Access-controlled egress doors., to read as follows:

**1008.1.4.4 Access-controlled egress doors.** The entrance doors in a means of egress in buildings with an occupancy in Group A, B, E, I-2, M, R-1 or R-2 and entrance doors to tenant spaces in occupancies in Groups A, B, E, I-2, M, R-1, and R-2 are permitted to be equipped with an approved entrance and egress access control system which shall be installed in accordance with all of the following criteria:

1. Egress doors shall be readily openable from the egress side without the use of a key, card or special knowledge of effort.
2. Push buttons are not allowed for egress purposes.
3. All devices utilized for exiting shall be listed for the purpose.
4. Activation of the building fire alarm system and/or sprinkler system, if provided, shall automatically unlock the doors, and the doors shall remain unlocked until the fire alarm system has been reset.
5. A Knox box may be required by the Fire Code Official for Fire Department access.

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A permit from the FD is required prior to the installation of any access-control and/or magnetic locking systems.

65. The amendment of Section 1008.1.9.3., entitled Locks and latches, by the addition of item 3.1 to read as follows:

3.1 Where egress doors are used in pairs and positive latching is required, approved automatic flush bolts shall be permitted to be used, provided that both leaves achieve positive latching regardless of the closing sequence and the door leaf having the automatic flush bolts has no doorknobs or surface mounted hardware.

66. The amendment of Exceptions #3 and #4 to Section 1008.1.9.4, entitled Bolt locks., to read as follows:

3. Where a pair of doors serves an occupant load of less than 50 persons in a Group B, F, M or S occupancy, manually operated edge- or surface-mounted bolts are permitted on the inactive leaf. The inactive leaf shall contain no doorknobs, panic bars or similar operating hardware.

4. Where a pair of doors serves an occupant load of less than 50 persons in a Group B, F, M or S occupancy, manually operated edge- or surface-mounted bolts are permitted on the inactive leaf provided such inactive leaf is not needed to meet egress width requirements and the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. The inactive leaf shall contain no doorknobs, panic bars or similar operating hardware.

67. The amendment of Section 1008.1.9.7, entitled Delayed egress locks., to read as follows:

**1008.1.9.7 Delayed egress locks.** A permit from the Fire Department is required prior to the installation of any delayed egress locks or other special locking systems. Approved, listed, delayed egress locks shall be permitted to be installed on doors serving any occupancy except Group A, E and H occupancies in buildings which are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and an approved automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors unlock in

accordance with Items 1 through 6 below. A building occupant shall not be required to pass through more than one door equipped with a delayed egress lock before entering an exit.

*(Items 1-6 remain unchanged.)*

68. The amendment of Section 1008.1.9.8., entitled Electromagnetically locked egress doors., to read as follows:

**1008.1.9.8 Electromagnetically locked egress doors.** Doors in the *means of egress* that are not otherwise required to have panic hardware in buildings with an occupancy in Group A, B, E, I-1, I-2, M, R-1 or R-2 and doors to tenant spaces in Group A, B, E, I-1, I-2, M, R-1 or R-2 shall be permitted to be electromagnetically locked if equipped with *listed* hardware that incorporates a built-in switch and meet the requirements below:

1. The *listed* hardware that is affixed to the door leaf has an obvious method of operation that is readily operated under all lighting conditions.
2. The *listed* hardware is capable of being operated with one hand.
3. Operation of the *listed* hardware releases to the electromagnetic lock and unlocks the door immediately.
4. Loss of power to the *listed* hardware automatically unlocks the door.

69. The amendment of Section 1008.1.9.10, entitled Stairway Doors., by adding Exception #4, to read as follows:

4. In stairways serving more than four stories, doors can be locked from stairway side, if lock is connected to fire alarm system and key to the door is provided in a Knox Box. Activation of fire alarm system must release locks on all stairway doors.

70. The amendment of Section 1011.4, entitled Internally illuminated exit signs., to read as follows:

**1011.4 Internally illuminated exit signs.** Electrically powered and *self-luminous exit* signs shall be listed and labeled in accordance with UL 294

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and shall be installed in accordance with the manufacturer's instructions and Chapter 27. *Exit* signs shall be illuminated at all times. *Photoluminescent exit* signs are prohibited.

71. The addition of Section 1015.7, entitled Electrical room means of egress., to read as follows:

**1015.7 Electrical room means of egress.** For electrical rooms containing equipment over 600 volts, see electrical code, NFPA 70, Article 110, generally.

72. The amendment of Exceptions #3 and #4 to Section 1016.1, entitled Travel distance limitations., to read as follows:

3. In other than occupancy Groups H and I, the *exit* access travel distance to a maximum of 50 percent of the exits is to be measured from the most remote point within a building to an exit using unenclosed *exit access* stairways or *ramps* when connecting to a maximum of two stories. The two connected stories shall be provided with at least two *means of egress*. Such interconnected stories shall not be open to other stories.

4. In other than occupancy Groups H and I, the *exit* access travel distance to a maximum of 50 percent of the exits is to be measured from the most remote point within a building to an exit using unenclosed *exit access* stairways or *ramps* in the first and second stories above *grade plane* in buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1. The first and second stories above *grade plane* shall be provided with at least two *means of egress*. Such interconnected stories shall not be open to other stories.

73. The amendment of Section 1016, entitled EXIT ACCESS TRAVEL DISTANCE, to add a new section to read as follows:

**1016.3. Roof vent increase.** In buildings that are one story in height, equipped with automatic heat and smoke roof vents complying with Section 910 and equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, the maximum exit access travel distance shall be 400 feet for occupancies in Group F-1 or S-1.

74. The amendment of Section 1018.1, entitled Construction., to add Exception #5 to read as follows:

5. In Group B office buildings, corridor walls and ceilings need not be of fire-resistive construction within office spaces of a single tenant when the space is equipped with an approved automatic smoke-detection system within the corridor. The actuation of any detector shall activate alarms audible in all areas served by the corridor. The smoke-detection system shall be connected to the building's fire alarm system where such a system is provided.

75. The amendment of Section 1022.1, entitled Enclosures required., by adding Exceptions # 8 and #9 to read as follows:

8. In other than occupancy Groups H and I, a maximum of 50 percent of egress stairways serving one adjacent floor are not required to be enclosed, provided at least two means of egress are provided from both floors served by the unenclosed stairways. Any two such interconnected floors shall not be open to other floors.
9. In other than occupancy Groups H and I, interior egress stairways serving only the first and second stories of a building equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 are not required to be enclosed, provided at least two means of egress are provided from both floors served by the unenclosed stairways. Such interconnected stories shall not be open to other stories.

76. The amendment of Section 1101.2, entitled Design., to add an Exception to read as follows:

**EXCEPTION.** Projects registered with the Architectural Barriers Division of the Texas Department of Licensing and Regulation shall be deemed to be in compliance with the requirements of this Chapter.

77. The amendment of Table 1505.1, entitled MINIMUM ROOF COVERING CLASSIFICATION FOR TYPES OF CONSTRUCTION., by **deleting** footnote b and **amending and renumbering** footnote c to read as follows:

- b. Non-classified roof coverings shall be permitted on buildings of U occupancies having not more than 120 sq. ft. of projected roof area. When exceeding 120 sq. ft. of projected roof area, buildings

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of U occupancies may use non-rated non-combustible roof coverings.

78. The amendment of Section 1505.7, entitled Special purpose roofs., by deleting it in its entirety.
79. The amendment of Section 1510.1, entitled General., to read as follows:

**1510.1 General.** Materials and methods of applications used for recovering or replacing an existing roof covering shall comply with the requirements of Chapter 15. All individual replacement shingles or shakes shall be in compliance with the rating required by Table 1505.1.

**Exception:** Reroofing shall not be required to meet the minimum design slope requirement of one-quarter unit vertical in 12 units horizontal (2-percent slope) in Section 1507 for roofs that provide positive roof drainage.

80. The amendment of Section 1612.2, entitled Definitions., to delete **FLOOD HAZARD AREA SUBJECT TO HIGH VELOCITY WAVE ACTION**, and to amend **BASE FLOOD ELEVATION, EXISTING CONSTRUCTION, LOWEST FLOOR, SUBSTANTIAL DAMAGE** and **SUBSTANTIAL IMPROVEMENT** to read as follows:

**BASE FLOOD ELEVATION.** The elevation of the *base flood*, including wave height, relative to the National Geodetic Vertical Datum (NGVD), North American Vertical Datum (NAVD) or other datum specified on the Flood Insurance Rate Map (FIRM) and found in the accompanying Flood Insurance Study (FIS) for Zones A, AE, AH, A1-A30, or AR that indicates the water surface elevation resulting from the flood that has a 1% chance of equaling or exceeding that level in any given year.

**EXISTING CONSTRUCTION.** Any buildings and structures for which the “start of construction” commenced before the effective date of the initial FIRM (March 5, 1976). “Existing construction” may also be referred to as “existing structures.”

**LOWEST FLOOR.** The floor of the lowest enclosed area, including basement and finished garage, but excluding any unfinished or flood-resistant enclosure, usable solely for vehicle parking, building access or

limited storage provided that such enclosure is not built so as to render the structure in violation of this section.

**SUBSTANTIAL DAMAGE.** Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 25 percent of the market value of the structure before the damage occurred.

**SUBSTANTIAL IMPROVEMENT.** Any repair, reconstruction, rehabilitation, addition or improvement of a building or structure, the cost of which equals or exceeds 25 percent of the market value of the structure before the improvement or repair is started. If the structure has sustained substantial damage, any repairs are considered substantial improvement regardless of the actual repair work performed. The term does not, however, include either:

1. Any project for improvement of a building required to correct existing health, sanitary or safety code violations identified by the building official and that are the minimum necessary to assure safe living conditions.
2. Any alteration of a historic structure provided that the alteration will not preclude the structure's continued designation as a historic structure.

81. The amendment of Section 1612.3, entitled Establishment of flood hazard areas., to read as follows:

**1612.3 Establishment of flood hazard areas.** To establish flood hazard areas, the applicable governing authority shall adopt a flood hazard map and supporting data. The flood hazard map shall include, at a minimum, areas of special flood hazard as identified by the Federal Emergency Management Agency in an engineering report entitled "The Flood Insurance Study for Tarrant County, Texas, dated September 25, 2009, as amended or revised with the accompanying Flood Insurance Rate Map (FIRM) and Flood Boundary and Floodway Map (FBFM) and related supporting data along with any revisions thereto. The adopted flood hazard map and supporting data are hereby adopted by reference and declared to be part of this section.

82. The amendment of Section 1612.4, entitled Design and construction., to read as follows:

**1612.4 Design and construction.** The design and construction of buildings and structures located in *flood hazard areas*, including flood hazard areas subject to high-velocity wave action, shall be in accordance with Chapter 5 of ASCE 7 and with ASCE 24 and provisions of the City of Arlington's Flood Damage Ordinance.

83. The amendment of Section 1612.5, entitled Flood hazard documentation., to read as follows:

**1612.5 Flood hazard documentation.** The flood hazard documentation as identified in the City of Arlington's Flood Damage Ordinance shall be prepared and sealed by a *professional engineer* and submitted to the *building official*.

84. The amendment of Section 1807.2, entitled Retaining walls., to read as follows:

**1807.2 Retaining walls.** Retaining walls exceeding four feet (4') in developed height (the height from the base of the foundation to the top of the wall) at any point shall be designed by a professional engineer. A wall built in tiers shall be considered a single wall in developed height when the base of the upper tier is set back from the base of the lower tier less than one and one-half (1½) times the developed height of the wall section below. Walls supporting an imposed load such as a building, driveway or other permanent construction closer to the wall than one and one-half (1½) times the developed height of the wall shall be designed by a professional engineer.

When required to be designed by an engineer the design shall be in accordance with Sections 1807.2.1 through 1807.2.3.

85. The addition of Section 2308.4.3 entitled Application to engineered design., to read as follows:

**2308.4.3 Application to engineered design.** When accepted by the Building Official, any portion of this section is permitted to apply to buildings that are otherwise outside the limitations of this section provided that:

The resulting design will comply with the requirements specified in Chapter 16;

The load limitations of various elements of this section are not exceeded; and

The portions of this section which will apply are identified by an engineer in the construction documents.

85.1. The amendment of Tables 2308.8(1), 2308.8(2), 2308.9.5, 2308.9.6, 2308.10.2(1), 2308.10.2(2), 2308.10.3(1), 2308.10.3(2), 2308.10.3(3), and 2308.10.3(5), so that each Table shall read as follows:

**TABLE 2308.8(1)**  
**FLOOR JOIST SPANS FOR COMMON LUMBER SPECIES**  
**(Residential Sleeping Areas, Live Load = 30 psf, L/Δ = 360)**

JOIST SPACING (inches)	SPECIES AND GRADE		DEAD LOAD = 10 psf				DEAD LOAD = 20 psf			
			2x6	2x8	2x10	2x12	2x6	2x8	2x10	2x12
			Maximum floor joist spans							
			(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)
12	Douglas Fir-Larch	SS	12-6	16-6	21-0	25-7	12-6	16-6	21-0	25-7
	Douglas Fir-Larch	#1	12-0	15-10	20-3	24-8	12-0	15-7	19-0	22-0
	Douglas Fir-Larch	#2	11-10	15-7	19-10	23-0	11-6	14-7	17-9	20-7
	Douglas Fir-Larch	#3	9-8	12-4	15-0	17-5	8-8	11-0	13-5	15-7
	Hem-Fir	SS	11-10	15-7	19-10	24-2	11-10	15-7	19-10	24-2
	Hem-Fir	#1	11-7	15-3	19-5	23-7	11-7	15-2	18-6	21-6
	Hem-Fir	#2	11-0	14-6	18-6	22-6	11-0	14-4	17-6	20-4
	Hem-Fir	#3	9-8	12-4	15-0	17-5	8-8	11-0	13-5	15-7
	Southern Pine	SS	12-3	16-2	20-8	25-1	12-3	16-2	20-8	25-1
	Southern Pine	#1	11-10	15-7	19-10	24-2	11-10	15-7	18-7	22-0
	Southern Pine	#2	11-3	14-11	18-1	21-4	10-9	13-8	16-2	19-1
	Southern Pine	#3	9-2	11-6	14-0	16-6	8-2	10-3	12-6	14-9
	Spruce-Pine-Fir	SS	11-7	15-3	19-5	23-7	11-7	15-3	19-5	23-7
	Spruce-Pine-Fir	#1	11-3	14-11	19-0	23-0	11-3	14-7	17-9	20-7
	Spruce-Pine-Fir	#2	11-3	14-11	19-0	23-0	11-3	14-7	17-9	20-7
	Spruce-Pine-Fir	#3	9-8	12-4	15-0	17-5	8-8	11-0	13-5	15-7
16	Douglas Fir-Larch	SS	11-4	15-0	19-1	23-3	11-4	15-0	19-1	23-0
	Douglas Fir-Larch	#1	10-11	14-5	18-5	21-4	10-8	13-6	16-5	19-1
	Douglas Fir-Larch	#2	10-9	14-1	17-2	19-11	9-11	12-7	15-5	17-10
	Douglas Fir-Larch	#3	8-5	10-8	13-0	15-1	7-6	9-6	11-8	13-6

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**TABLE 2308.8(1) — continued**  
**FLOOR JOIST SPANS FOR COMMON LUMBER SPECIES**  
**(Residential Sleeping Areas, Live Load = 30 psf, L/Δ = 360)**

JOIST SPACING (inches)	SPECIES AND GRADE		DEAD LOAD = 10 psf				DEAD LOAD = 20 psf			
			2x6	2x8	2x10	2x12	2x6	2x8	2x10	2x12
			Maximum floor joist spans							
			(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)
16	Hem-Fir	SS	10-9	14-2	18-0	21-11	10-9	14-2	18-0	21-11
	Hem-Fir	#1	10-6	13-10	17-8	20-9	10-4	13-1	16-0	18-7
	Hem-Fir	#2	10-0	13-2	16-10	19-8	9-10	12-5	15-2	17-7
	Hem-Fir	#3	8-5	10-8	13-0	15-1	7-6	9-6	11-8	13-6
	Southern Pine	SS	11-2	14-8	18-9	22-10	11-2	14-8	18-9	22-10
	Southern Pine	#1	10-9	14-2	18-0	21-4	10-9	13-9	16-1	19-1
	Southern Pine	#2	10-3	13-3	15-8	18-6	9-4	11-10	14-0	16-6
	Southern Pine	#3	7-11	10-10	12-1	14-4	7-1	8-11	10-10	12-10
	Spruce-Pine-Fir	SS	10-6	13-10	17-8	21-6	10-6	13-10	17-8	21-4
	Spruce-Pine-Fir	#1	10-3	13-6	17-2	19-11	9-11	12-7	15-5	17-10
	Spruce-Pine-Fir	#2	10-3	13-6	17-2	19-11	9-11	12-7	15-5	17-10
	Spruce-Pine-Fir	#3	8-5	10-8	13-0	15-1	7-6	9-6	11-8	13-6
19.2	Douglas Fir-Larch	SS	10-8	14-1	18-0	21-10	10-8	14-1	18-0	21-0
	Douglas Fir-Larch	#1	10-4	13-7	16-9	19-6	9-8	12-4	15-0	17-5
	Douglas Fir-Larch	#2	10-1	12-10	15-8	18-3	9-1	11-6	14-1	16-3
	Douglas Fir-Larch	#3	7-8	9-9	11-10	13-9	6-10	8-8	10-7	12-4
	Hem-Fir	SS	10-1	13-4	17-0	20-8	10-1	13-4	17-0	20-7
	Hem-Fir	#1	9-10	13-0	16-4	19-0	9-6	12-0	14-8	17-0
	Hem-Fir	#2	9-5	12-5	15-6	17-1	8-11	11-4	13-10	16-1
	Hem-Fir	#3	7-8	9-9	11-10	13-9	6-10	8-8	10-7	12-4
	Southern Pine	SS	10-6	13-10	17-8	21-6	10-6	13-10	17-8	21-6
	Southern Pine	#1	10-1	13-4	16-5	19-6	9-11	12-7	14-8	17-5
	Southern Pine	#2	9-6	12-1	14-4	16-10	8-6	10-10	12-10	15-1
	Southern Pine	#3	7-3	9-1	11-0	13-1	6-5	8-2	9-10	11-8
	Spruce-Pine-Fir	SS	9-10	13-0	16-7	20-2	9-10	13-0	16-7	19-6
	Spruce-Pine-Fir	#1	9-8	12-9	15-8	18-3	9-1	11-6	14-1	16-3
	Spruce-Pine-Fir	#2	9-8	12-9	15-8	18-3	9-1	11-6	14-1	16-3
	Spruce-Pine-Fir	#3	7-8	9-9	11-10	13-9	6-10	8-8	10-7	12-4

(continued)

TABLE 2308.8(1)—continued  
FLOOR JOIST SPANS FOR COMMON LUMBER SPECIES  
(Residential Sleeping Areas, Live Load = 30 psf, L/Δ = 360)

JOIST SPACING (inches)	SPECIES AND GRADE		DEAD LOAD = 10 psf				DEAD LOAD = 20 psf			
			2x6	2x8	2x10	2x12	2x6	2x8	2x10	2x12
			Maximum floor joist spans							
			(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)
24	Douglas Fir-Larch	SS	9-11	13-1	16-8	20-3	9-11	13-1	16-2	18-9
	Douglas Fir-Larch	#1	9-7	12-4	15-0	17-5	8-8	11-0	13-5	15-7
	Douglas Fir-Larch	#2	9-1	11-6	14-1	16-3	8-1	10-3	12-7	14-7
	Douglas Fir-Larch	#3	6-10	8-8	10-7	12-4	6-2	7-9	9-6	11-0
	Hem-Fir	SS	9-4	12-4	15-9	19-2	9-4	12-4	15-9	18-5
	Hem-Fir	#1	9-2	12-0	14-8	17-0	8-6	10-9	13-1	15-2
	Hem-Fir	#2	8-9	11-4	13-10	16-1	8-0	10-2	12-5	14-4
	Hem-Fir	#3	6-10	8-8	10-7	12-4	6-2	7-9	9-6	11-0
	Southern Pine	SS	9-9	12-10	16-5	19-11	9-9	12-10	16-5	19-8
	Southern Pine	#1	9-4	12-4	14-8	17-5	8-10	11-3	13-1	15-7
	Southern Pine	#2	8-6	10-10	12-10	15-1	7-7	9-8	11-5	13-6
	Southern Pine	#3	6-5	8-2	9-10	11-8	5-9	7-3	8-10	10-5
	Spruce-Pine-Fir	SS	9-2	12-1	15-5	18-9	9-2	12-1	15-0	17-5
	Spruce-Pine-Fir	#1	8-11	11-6	14-1	16-3	8-1	10-3	12-7	14-7
	Spruce-Pine-Fir	#2	8-11	11-6	14-1	16-3	8-1	10-3	12-7	14-7
	Spruce-Pine-Fir	#3	6-10	8-8	10-7	12-4	6-2	7-9	9-6	11-0

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 47.8 N/m<sup>2</sup>.

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**TABLE 2308.8(2)**  
**FLOOR JOIST SPANS FOR COMMON LUMBER SPECIES**  
**(Residential Living Areas, Live Load = 40 psf, L/Δ = 360)**

JOIST SPACING (inches)	SPECIES AND GRADE	DEAD LOAD = 10 psf				DEAD LOAD = 20 psf			
		2x6	2x8	2x10	2x12	2x6	2x8	2x10	2x12
		Maximum floor joist spans							
		(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)
12	Douglas Fir-Larch SS	11-4	15-0	19-1	23-3	11-4	15-0	19-1	23-3
	Douglas Fir-Larch #1	10-11	14-5	18-5	22-0	10-11	14-2	17-4	20-1
	Douglas Fir-Larch #2	10-9	14-2	17-9	20-7	10-6	13-3	16-3	18-10
	Douglas Fir-Larch #3	8-8	11-0	13-5	15-7	7-11	10-0	12-3	14-3
	Hem-Fir SS	10-9	14-2	18-0	21-11	10-9	14-2	18-0	21-11
	Hem-Fir #1	10-6	13-10	17-8	21-6	10-6	13-10	16-11	19-7
	Hem-Fir #2	10-0	13-2	16-10	20-4	10-0	13-1	16-0	18-6
	Hem-Fir #3	8-8	11-0	13-5	15-7	7-11	10-0	12-3	14-3
	Southern Pine SS	11-2	14-8	18-9	22-10	11-2	14-8	18-9	22-10
	Southern Pine #1	10-9	14-2	18-0	21-11	10-9	14-2	16-11	20-1
	Southern Pine #2	10-3	13-6	16-2	19-1	9-10	12-6	14-9	17-5
	Southern Pine #3	8-2	10-3	12-6	14-9	7-5	9-5	11-5	13-6
	Spruce-Pine-Fir SS	10-6	13-10	17-8	21-6	10-6	13-10	17-8	21-6
	Spruce-Pine-Fir #1	10-3	13-6	17-3	20-7	10-3	13-3	16-3	18-10
	Spruce-Pine-Fir #2	10-3	13-6	17-3	20-7	10-3	13-3	16-3	18-10
	Spruce-Pine-Fir #3	8-8	11-0	13-5	15-7	7-11	10-0	12-3	14-3
16	Douglas Fir-Larch SS	10-4	13-7	17-4	21-1	10-4	13-7	17-4	21-0
	Douglas Fir-Larch #1	9-11	13-1	16-5	19-1	9-8	12-4	15-0	17-5
	Douglas Fir-Larch #2	9-9	12-7	15-5	17-10	9-1	11-6	14-1	16-3
	Douglas Fir-Larch #3	7-6	9-6	11-8	13-6	6-10	8-8	10-7	12-4
	Hem-Fir SS	9-9	12-10	16-5	19-11	9-9	12-10	16-5	19-11
	Hem-Fir #1	9-6	12-7	16-0	18-7	9-6	12-0	14-8	17-0
	Hem-Fir #2	9-1	12-0	15-2	17-7	8-11	11-4	13-10	16-1
	Hem-Fir #3	7-6	9-6	11-8	13-6	6-10	8-8	10-7	12-4
	Southern Pine SS	10-2	13-4	17-0	20-9	10-2	13-4	17-0	20-9
	Southern Pine #1	9-9	12-10	16-1	19-1	9-9	12-7	14-8	17-5
	Southern Pine #2	9-4	11-10	14-0	16-6	8-6	10-10	12-10	15-1
	Southern Pine #3	7-1	8-11	10-10	12-10	6-5	8-2	9-10	11-8
	Spruce-Pine-Fir SS	9-6	12-7	16-0	19-6	9-6	12-7	16-0	19-6
	Spruce-Pine-Fir #1	9-4	12-3	15-5	17-10	9-1	11-6	14-1	16-3
	Spruce-Pine-Fir #2	9-4	12-3	15-5	17-10	9-1	11-6	14-1	16-3
	Spruce-Pine-Fir #3	7-6	9-6	11-8	13-6	6-10	8-8	10-7	12-4
19.2	Douglas Fir-Larch SS	9-8	12-10	16-4	19-10	9-8	12-10	16-4	19-2
	Douglas Fir-Larch #1	9-4	12-4	15-0	17-5	8-10	11-3	13-8	15-11
	Douglas Fir-Larch #2	9-1	11-6	14-1	16-3	8-3	10-6	12-10	14-10
	Douglas Fir-Larch #3	6-10	8-8	10-7	12-4	6-3	7-11	9-8	11-3
	Hem-Fir SS	9-2	12-1	15-5	18-9	9-2	12-1	15-5	18-9
	Hem-Fir #1	9-0	11-10	14-8	17-0	8-8	10-11	13-4	15-6
	Hem-Fir #2	8-7	11-3	13-10	16-1	8-2	10-4	12-8	14-8
	Hem-Fir #3	6-10	8-8	10-7	12-4	6-3	7-11	9-8	11-3
	Southern Pine SS	9-6	12-7	16-0	19-6	9-6	12-7	16-0	19-6
	Southern Pine #1	9-2	12-1	14-8	17-5	9-0	11-5	13-5	15-11
	Southern Pine #2	8-6	10-10	12-10	15-1	7-9	9-10	11-8	13-9
	Southern Pine #3	6-5	8-2	9-10	11-8	5-11	7-5	9-0	10-8

(continued)

**TABLE 2308.8(2)—continued**  
**FLOOR JOIST SPANS FOR COMMON LUMBER SPECIES**  
**(Residential Living Areas, Live Load = 40 psf, L/Δ = 360)**

JOIST SPACING (inches)	SPECIES AND GRADE	DEAD LOAD = 10 psf				DEAD LOAD = 20 psf			
		2x6	2x8	2x10	2x12	2x6	2x8	2x10	2x12
		Maximum floor joist spans							
		(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)
19.2	Spruce-Pine-Fir SS	9-0	11-10	15-1	18-4	9-0	11-10	15-1	17-9
	Spruce-Pine-Fir #1	8-9	11-6	14-1	16-3	8-3	10-6	12-10	14-10
	Spruce-Pine-Fir #2	8-9	11-6	14-1	16-3	8-3	10-6	12-10	14-10
	Spruce-Pine-Fir #3	6-10	8-8	10-7	12-4	6-3	7-11	9-8	11-3
24	Douglas Fir-Larch SS	9-0	11-11	15-2	18-5	9-0	11-11	14-9	17-1
	Douglas Fir-Larch #1	8-8	11-0	13-5	15-7	7-11	10-0	12-3	14-3
	Douglas Fir-Larch #2	8-1	10-3	12-7	14-7	7-5	9-5	11-6	13-4
	Douglas Fir-Larch #3	6-2	7-9	9-6	11-0	5-7	7-1	8-8	10-1
	Hem-Fir SS	8-6	11-3	14-4	17-5	8-6	11-3	14-4	16-10 <sup>a</sup>
	Hem-Fir #1	8-4	10-9	13-1	15-2	7-9	9-9	11-11	13-10
	Hem-Fir #2	7-11	10-2	12-5	14-4	7-4	9-3	11-4	13-1
	Hem-Fir #3	6-2	7-9	9-6	11-0	5-7	7-1	8-8	10-1
	Southern Pine SS	8-10	11-8	14-11	18-1	8-10	11-8	14-11	18-0
	Southern Pine #1	8-6	11-3	13-1	15-7	8-1	10-3	12-0	14-3
	Southern Pine #2	7-7	9-8	11-5	13-6	7-0	8-10	10-5	12-4
	Southern Pine #3	5-9	7-3	8-10	10-5	5-3	6-8	8-1	9-6
	Spruce-Pine-Fir SS	8-4	11-0	14-0	17-0	8-4	11-0	13-8	15-11
	Spruce-Pine-Fir #1	8-1	10-3	12-7	14-7	7-5	9-5	11-6	13-4
	Spruce-Pine-Fir #2	8-1	10-3	12-7	14-7	7-5	9-5	11-6	13-4
	Spruce-Pine-Fir #3	6-2	7-9	9-6	11-0	5-7	7-1	8-8	10-1

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 47.8 N/m<sup>2</sup>.

a. End bearing length shall be increased to 2 inches.

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**TABLE 2308.9.5  
HEADER AND GIRDER SPANS<sup>ab</sup> FOR EXTERIOR BEARING WALLS  
(Maximum Spans for Douglas Fir-Larch, Hem-Fir, Southern Pine and Spruce-Pine-Fir and Required Number of Jack Studs)**

HEADERS SUPPORTING	SIZE	GROUND SNOW LOAD (psf) <sup>e</sup>											
		30						50					
		Building width <sup>c</sup> (feet)											
		20		28		36		20		28		36	
Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>
Roof & Ceiling	2-2x4	3-6	1	3-2	1	2-10	1	3-2	1	2-9	1	2-6	1
	2-2x6	5-5	1	4-8	1	4-2	1	4-8	1	4-1	1	3-8	2
	2-2x8	6-10	1	5-11	2	5-4	2	5-11	2	5-2	2	4-7	2
	2-2x10	8-5	2	7-3	2	6-6	2	7-3	2	6-3	2	5-7	2
	2-2x12	9-9	2	8-5	2	7-6	2	8-5	2	7-3	2	6-6	2
	3-2x8	8-4	1	7-5	1	6-8	1	7-5	1	6-5	2	5-9	2
	3-2x10	10-6	1	9-1	2	8-2	2	9-1	2	7-10	2	7-0	2
	3-2x12	12-2	2	10-7	2	9-5	2	10-7	2	9-2	2	8-2	2
	4-2x8	9-2	1	8-4	1	7-8	1	8-4	1	7-5	1	6-8	1
	4-2x10	11-8	1	10-6	1	9-5	2	10-6	1	9-1	2	8-2	2
Roof, Ceiling & 1 Center-Bearing Floor	2-2x4	3-1	1	2-9	1	2-5	1	2-9	1	2-5	1	2-2	1
	2-2x6	4-6	1	4-0	1	3-7	2	4-1	1	3-7	2	3-3	2
	2-2x8	5-9	2	5-0	2	4-6	2	5-2	2	4-6	2	4-1	2
	2-2x10	7-0	2	6-2	2	5-6	2	6-4	2	5-6	2	5-0	2
	2-2x12	8-1	2	7-1	2	6-5	2	7-4	2	6-5	2	5-9	3
	3-2x8	7-2	1	6-3	2	5-8	2	6-5	2	5-8	2	5-1	2
	3-2x10	8-9	2	7-8	2	6-11	2	7-11	2	6-11	2	6-3	2
	3-2x12	10-2	2	8-11	2	8-0	2	9-2	2	8-0	2	7-3	2
	4-2x8	8-1	1	7-3	1	6-7	1	7-5	1	6-6	1	5-11	2
	4-2x10	10-1	1	8-10	2	8-0	2	9-1	2	8-0	2	7-2	2
Roof, Ceiling & 1 Clear Span Floor	2-2x4	2-8	1	2-4	1	2-1	1	2-7	1	2-3	1	2-0	1
	2-2x6	3-11	1	3-5	2	3-0	2	3-10	2	3-4	2	3-0	2
	2-2x8	5-0	2	4-4	2	3-10	2	4-10	2	4-2	2	3-9	2
	2-2x10	6-1	2	5-3	2	4-8	2	5-11	2	5-1	2	4-7	3
	2-2x12	7-1	2	6-1	3	5-5	3	6-10	2	5-11	3	5-4	3
	3-2x8	6-3	2	5-5	2	4-10	2	6-1	2	5-3	2	4-8	2
	3-2x10	7-7	2	6-7	2	5-11	2	7-5	2	6-5	2	5-9	2
	3-2x12	8-10	2	7-8	2	6-10	2	8-7	2	7-5	2	6-8	2
	4-2x8	7-2	1	6-3	2	5-7	2	7-0	1	6-1	2	5-5	2
	4-2x10	8-9	2	7-7	2	6-10	2	8-7	2	7-5	2	6-7	2
4-2x12	10-2	2	8-10	2	7-11	2	9-11	2	8-7	2	7-8	2	

(continued)

**TABLE 2308.9.5—continued**  
**HEADER AND GIRDER SPANS<sup>a,b</sup> FOR EXTERIOR BEARING WALLS**  
**(Maximum Spans for Douglas Fir-Larch, Hem-Fir, Southern Pine and Spruce-Pine-Fir and Required Number of Jack Studs)**

HEADERS SUPPORTING	SIZE	GROUND SNOW LOAD (psf) <sup>e</sup>											
		30						50					
		Building width <sup>c</sup> (feet)											
		20		28		36		20		28		36	
Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>
Roof, Ceiling & 2 Center-Bearing Floors	2-2×4	2-7	1	2-3	1	2-0	1	2-6	1	2-2	1	1-11	1
	2-2×6	3-9	2	3-3	2	2-11	2	3-8	2	3-2	2	2-10	2
	2-2×8	4-9	2	4-2	2	3-9	2	4-7	2	4-0	2	3-8	2
	2-2×10	5-9	2	5-1	2	4-7	3	5-8	2	4-11	2	4-5	3
	2-2×12	6-8	2	5-10	3	5-3	3	6-6	2	5-9	3	5-2	3
	3-2×8	5-11	2	5-2	2	4-8	2	5-9	2	5-1	2	4-7	2
	3-2×10	7-3	2	6-4	2	5-8	2	7-1	2	6-2	2	5-7	2
	3-2×12	8-5	2	7-4	2	6-7	2	8-2	2	7-2	2	6-5	3
	4-2×8	6-10	1	6-0	2	5-5	2	6-8	1	5-10	2	5-3	2
	4-2×10	8-4	2	7-4	2	6-7	2	8-2	2	7-2	2	6-5	2
4-2×12	9-8	2	8-6	2	7-8	2	9-5	2	8-3	2	7-5	2	
Roof, Ceiling & 2 Clear Span Floors	2-2×4	2-1	1	1-8	1	1-6	2	2-0	1	1-8	1	1-5	2
	2-2×6	3-1	2	2-8	2	2-4	2	3-0	2	2-7	2	2-3	2
	2-2×8	3-10	2	3-4	2	3-0	3	3-10	2	3-4	2	2-11	3
	2-2×10	4-9	2	4-1	3	3-8	3	4-8	2	4-0	3	3-7	3
	2-2×12	5-6	3	4-9	3	4-3	3	5-5	3	4-8	3	4-2	3
	3-2×8	4-10	2	4-2	2	3-9	2	4-9	2	4-1	2	3-8	2
	3-2×10	5-11	2	5-1	2	4-7	3	5-10	2	5-0	2	4-6	3
	3-2×12	6-10	2	5-11	3	5-4	3	6-9	2	5-10	3	5-3	3
	4-2×8	5-7	2	4-10	2	4-4	2	5-6	2	4-9	2	4-3	2
	4-2×10	6-10	2	5-11	2	5-3	2	6-9	2	5-10	2	5-2	2
4-2×12	7-11	2	6-10	2	6-2	3	7-9	2	6-9	2	6-0	3	

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 47.8 N/m<sup>2</sup>.

- a. Spans are given in feet and inches (ft-in).
- b. Spans are based on minimum design properties for No. 2 Grade lumber of Douglas fir-larch, hem-fir, and spruce-pine-fir. No. 1 or better grade lumber shall be used for southern pine.
- c. Building width is measured perpendicular to the ridge. For widths between those shown, spans are permitted to be interpolated.
- d. NJ - Number of jack studs required to support each end. Where the number of required jack studs equals one, the header is permitted to be supported by an *approved* framing anchor attached to the full-height wall stud and to the header.
- e. Use 30 pounds per square foot ground snow load for cases in which ground snow load is less than 30 pounds per square foot and the roof live load is equal to or less than 20 pounds per square foot.

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**TABLE 2308.9.6  
HEADER AND GIRDER SPANS<sup>a,b</sup> FOR INTERIOR BEARING WALLS  
(Maximum Spans for Douglas Fir-Larch, Hem-Fir, Southern Pine and Spruce-Pine-Fir and Required Number of Jack Studs)**

HEADERS AND GIRDERS SUPPORTING	SIZE	BUILDING width <sup>c</sup> (feet)					
		20		28		36	
		Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>
One Floor Only	2-2×4	3-1	1	2-8	1	2-5	1
	2-2×6	4-6	1	3-11	1	3-6	1
	2-2×8	5-9	1	5-0	2	4-5	2
	2-2×10	7-0	2	6-1	2	5-5	2
	2-2×12	8-1	2	7-0	2	6-3	2
	3-2×8	7-2	1	6-3	1	5-7	2
	3-2×10	8-9	1	7-7	2	6-9	2
	3-2×12	10-2	2	8-10	2	7-10	2
	4-2×8	9-0	1	7-8	1	6-9	1
	4-2×10	10-1	1	8-9	1	7-10	2
	4-2×12	11-9	1	10-2	2	9-1	2
Two Floors	2-2×4	2-2	1	1-10	1	1-7	1
	2-2×6	3-2	2	2-9	2	2-5	2
	2-2×8	4-1	2	3-6	2	3-2	2
	2-2×10	4-11	2	4-3	2	3-10	3
	2-2×12	5-9	2	5-0	3	4-5	3
	3-2×8	5-1	2	4-5	2	3-11	2
	3-2×10	6-2	2	5-4	2	4-10	2
	3-2×12	7-2	2	6-3	2	5-7	3
	4-2×8	6-1	1	5-3	2	4-8	2
	4-2×10	7-2	2	6-2	2	5-6	2
	4-2×12	8-4	2	7-2	2	6-5	2

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

- Spans are given in feet and inches (ft-in).
- Spans are based on minimum design properties for No. 2 Grade lumber of Douglas fir-larch, hem-fir, and spruce-pine-fir. No. 1 or better grade lumber shall be used for southern pine.
- Building width is measured perpendicular to the ridge. For widths between those shown, spans are permitted to be interpolated.
- NJ - Number of jack studs required to support each end. Where the number of required jack studs equals one, the headers are permitted to be supported by an approved framing anchor attached to the full-height wall stud and to the header.

TABLE 2308.10.2(1)  
CEILING JOIST SPANS FOR COMMON LUMBER SPECIES  
(Uninhabitable Attics Without Storage, Live Load = 10 pounds psf, L/Δ = 240)

CEILING JOIST SPACING (inches)	SPECIES AND GRADE		DEAD LOAD = 5 pounds per square foot			
			2 x 4	2 x 6	2 x 8	2 x 10
			Maximum ceiling joist spans			
			(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)
12	Douglas Fir-Larch	SS	13-2	20-8	26-0	26-0
	Douglas Fir-Larch	#1	12-8	19-11	26-0	26-0
	Douglas Fir-Larch	#2	12-5	19-6	25-8	26-0
	Douglas Fir-Larch	#3	10-10	15-10	20-1	24-6
	Hem-Fir	SS	12-5	19-6	25-8	26-0
	Hem-Fir	#1	12-2	19-1	25-2	26-0
	Hem-Fir	#2	11-7	18-2	24-0	26-0
	Hem-Fir	#3	10-10	15-10	20-1	24-6
	Southern Pine	SS	12-11	20-3	26-0	26-0
	Southern Pine	#1	12-5	19-6	25-8	26-0
	Southern Pine	#2	11-10	18-8	24-7	26-0
	Southern Pine	#3	10-1	14-11	18-9	22-9
	Spruce-Pine-Fir	SS	12-2	19-1	25-2	26-0
	Spruce-Pine-Fir	#1	11-10	18-8	24-7	26-0
	Spruce-Pine-Fir	#2	11-10	18-8	24-7	26-0
	Spruce-Pine-Fir	#3	10-10	15-10	20-1	24-6
16	Douglas Fir-Larch	SS	11-11	18-9	24-8	26-0
	Douglas Fir-Larch	#1	11-6	18-1	23-10	26-0
	Douglas Fir-Larch	#2	11-3	17-8	23-0	26-0
	Douglas Fir-Larch	#3	9-5	13-9	17-5	21-3
	Hem-Fir	SS	11-3	17-8	23-4	26-0
	Hem-Fir	#1	11-0	17-4	22-10	26-0
	Hem-Fir	#2	10-6	16-6	21-9	26-0
	Hem-Fir	#3	9-5	13-9	17-5	21-3
	Southern Pine	SS	11-9	18-5	24-3	26-0
	Southern Pine	#1	11-3	17-8	23-4	26-0
	Southern Pine	#2	10-9	16-11	21-7	25-7
	Southern Pine	#3	8-9	12-11	16-3	19-9
	Spruce-Pine-Fir	SS	11-0	17-4	22-10	26-0
	Spruce-Pine-Fir	#1	10-9	16-11	22-4	26-0
	Spruce-Pine-Fir	#2	10-9	16-11	22-4	26-0
	Spruce-Pine-Fir	#3	9-5	13-9	17-5	21-3

(continued)

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**TABLE 2308.10.2(1)—continued**  
**CEILING JOIST SPANS FOR COMMON LUMBER SPECIES**  
**(Uninhabitable Attics Without Storage, Live Load = 10 pounds psf, L/Δ = 240)**

CEILING JOIST SPACING (inches)	SPECIES AND GRADE		DEAD LOAD = 5 pounds per square foot			
			2 × 4	2 × 6	2 × 8	2 × 10
			Maximum ceiling joist spans			
			(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)
19.2	Douglas Fir-Larch	SS	11-3	17-8	23-3	26-0
	Douglas Fir-Larch	#1	10-10	17-0	22-5	26-0
	Douglas Fir-Larch	#2	10-7	16-7	21-0	25-8
	Douglas Fir-Larch	#3	8-7	12-6	15-10	19-5
	Hem-Fir	SS	10-7	16-8	21-11	26-0
	Hem-Fir	#1	10-4	16-4	21-6	26-0
	Hem-Fir	#2	9-11	15-7	20-6	25-3
	Hem-Fir	#3	8-7	12-6	15-10	19-5
	Southern Pine	SS	11-0	17-4	22-10	26-0
	Southern Pine	#1	10-7	16-8	22-0	26-0
	Southern Pine	#2	10-2	15-7	19-8	23-5
	Southern Pine	#3	8-0	11-9	14-10	18-0
	Spruce-Pine-Fir	SS	10-4	16-4	21-6	26-0
	Spruce-Pine-Fir	#1	10-2	15-11	21-0	25-8
	Spruce-Pine-Fir	#2	10-2	15-11	21-0	25-8
	Spruce-Pine-Fir	#3	8-7	12-6	15-10	19-5
24	Douglas Fir-Larch	SS	10-5	16-4	21-7	26-0
	Douglas Fir-Larch	#1	10-0	15-9	20-1	24-6
	Douglas Fir-Larch	#2	9-10	14-10	18-9	22-11
	Douglas Fir-Larch	#3	7-8	11-2	14-2	17-4
	Hem-Fir	SS	9-10	15-6	20-5	26-0
	Hem-Fir	#1	9-8	15-2	19-7	23-11
	Hem-Fir	#2	9-2	14-5	18-6	22-7
	Hem-Fir	#3	7-8	11-2	14-2	17-4
	Southern Pine	SS	10-3	16-1	21-2	26-0
	Southern Pine	#1	9-10	15-6	20-5	24-0
	Southern Pine	#2	9-3	13-11	17-7	20-11
	Southern Pine	#3	7-2	10-6	13-3	16-1
	Spruce-Pine-Fir	SS	9-8	15-2	19-11	25-5
	Spruce-Pine-Fir	#1	9-5	14-9	18-9	22-11
	Spruce-Pine-Fir	#2	9-5	14-9	18-9	22-11
	Spruce-Pine-Fir	#3	7-8	11-2	14-2	17-4

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 47.8 N/m<sup>2</sup>.

**TABLE 2308.10.2(2)**  
**CEILING JOIST SPANS FOR COMMON LUMBER SPECIES**  
 (Uninhabitable Attics With Limited Storage, Live Load = 20 pounds per square foot, L/Δ = 240)

CEILING JOIST SPACING (inches)	SPECIES AND GRADE		DEAD LOAD = 10 pounds per square foot			
			2 × 4	2 × 6	2 × 8	2 × 10
			Maximum ceiling joist spans			
			(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)
12	Douglas Fir-Larch	SS	10-5	16-4	21-7	26-0
	Douglas Fir-Larch	#1	10-0	15-9	20-1	24-6
	Douglas Fir-Larch	#2	9-10	14-10	18-9	22-11
	Douglas Fir-Larch	#3	7-8	11-2	14-2	17-4
	Hem-Fir	SS	9-10	15-6	20-5	26-0
	Hem-Fir	#1	9-8	15-2	19-7	23-11
	Hem-Fir	#2	9-2	14-5	18-6	22-7
	Hem-Fir	#3	7-8	11-2	14-2	17-4
	Southern Pine	SS	10-3	16-1	21-2	26-0
	Southern Pine	#1	9-10	15-6	20-5	24-0
	Southern Pine	#2	9-3	13-11	17-7	20-11
	Southern Pine	#3	7-2	10-6	13-3	16-1
	Spruce-Pine-Fir	SS	9-8	15-2	19-11	25-5
	Spruce-Pine-Fir	#1	9-5	14-9	18-9	22-11
	Spruce-Pine-Fir	#2	9-5	14-9	18-9	22-11
	Spruce-Pine-Fir	#3	7-8	11-2	14-2	17-4
16	Douglas Fir-Larch	SS	9-6	14-11	19-7	25-0
	Douglas Fir-Larch	#1	9-1	13-9	17-5	21-3
	Douglas Fir-Larch	#2	8-9	12-10	16-3	19-10
	Douglas Fir-Larch	#3	6-8	9-8	12-4	15-0
	Hem-Fir	SS	8-11	14-1	18-6	23-8
	Hem-Fir	#1	8-9	13-5	16-10	20-8
	Hem-Fir	#2	8-4	12-8	16-0	19-7
	Hem-Fir	#3	6-8	9-8	12-4	15-0
	Southern Pine	SS	9-4	14-7	19-3	24-7
	Southern Pine	#1	8-11	14-0	17-9	20-9
	Southern Pine	#2	8-0	12-0	15-3	18-1
	Southern Pine	#3	6-2	9-2	11-6	14-0
	Spruce-Pine-Fir	SS	8-9	13-9	18-1	23-1
	Spruce-Pine-Fir	#1	8-7	12-10	16-3	19-10
	Spruce-Pine-Fir	#2	8-7	12-10	16-3	19-10
	Spruce-Pine-Fir	#3	6-8	9-8	12-4	15-0

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**TABLE 2308.10.2(2)—continued  
CEILING JOIST SPANS FOR COMMON LUMBER SPECIES  
(Uninhabitable Attics With Limited Storage, Live Load = 20 pounds per square foot, L/Δ = 240)**

CEILING JOIST SPACING (inches)	SPECIES AND GRADE		DEAD LOAD = 10 pounds per square foot			
			2 x 4	2 x 6	2 x 8	2 x 10
			Maximum ceiling joist spans			
			(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)
19.2	Douglas Fir-Larch	SS	8-11	14-0	18-5	23-4
	Douglas Fir-Larch	#1	8-7	12-6	15-10	19-5
	Douglas Fir-Larch	#2	8-0	11-9	14-10	18-2
	Douglas Fir-Larch	#3	6-1	8-10	11-3	13-8
	Hem-Fir	SS	8-5	13-3	17-5	22-3
	Hem-Fir	#1	8-3	12-3	15-6	18-11
	Hem-Fir	#2	7-10	11-7	14-8	17-10
	Hem-Fir	#3	6-1	8-10	11-3	13-8
	Southern Pine	SS	8-9	13-9	18-2	23-1
	Southern Pine	#1	8-5	12-9	16-2	18-11
	Southern Pine	#2	7-4	11-0	13-11	16-6
	Southern Pine	#3	5-8	8-4	10-6	12-9
	Spruce-Pine-Fir	SS	8-3	12-11	17-1	21-8
	Spruce-Pine-Fir	#1	8-0	11-9	14-10	18-2
	Spruce-Pine-Fir	#2	8-0	11-9	14-10	18-2
	Spruce-Pine-Fir	#3	6-1	8-10	11-3	13-8
24	Douglas Fir-Larch	SS	8-3	13-0	17-1	20-11
	Douglas Fir-Larch	#1	7-8	11-2	14-2	17-4
	Douglas Fir-Larch	#2	7-2	10-6	13-3	16-3
	Douglas Fir-Larch	#3	5-5	7-11	10-0	12-3
	Hem-Fir	SS	7-10	12-3	16-2	20-6
	Hem-Fir	#1	7-6	10-11	13-10	16-11
	Hem-Fir	#2	7-1	10-4	13-1	16-0
	Hem-Fir	#3	5-5	7-11	10-0	12-3
	Southern Pine	SS	8-1	12-9	16-10	21-6
	Southern Pine	#1	7-8	11-5	14-6	16-11
	Southern Pine	#2	6-7	9-10	12-6	14-9
	Southern Pine	#3	5-1	7-5	9-5	11-5
	Spruce-Pine-Fir	SS	7-8	12-0	15-10	19-5
	Spruce-Pine-Fir	#1	7-2	10-6	13-3	16-3
	Spruce-Pine-Fir	#2	7-2	10-6	13-3	16-3
	Spruce-Pine-Fir	#3	5-5	7-11	10-0	12-3

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 47.8 N/m<sup>2</sup>.

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TABLE 2308.10.3(1)  
**RAFTER SPANS FOR COMMON LUMBER SPECIES**  
 (Roof Live Load = 20 pounds per square foot, Ceiling Not Attached to Rafters, L/Δ = 180)

RAFTER SPACING (inches)	SPECIES AND GRADE		DEAD LOAD = 10 pounds per square foot					DEAD LOAD = 20 pounds per square foot				
			2 x 4	2 x 6	2 x 8	2 x 10	2 x 12	2 x 4	2 x 6	2 x 8	2 x 10	2 x 12
			Maximum rafter spans									
			(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)
12	Douglas Fir-Larch	SS	11-6	18-0	23-9	26-0	26-0	11-6	18-0	23-5	26-0	26-0
	Douglas Fir-Larch	#1	11-1	17-4	22-5	26-0	26-0	10-6	15-4	19-5	23-9	26-0
	Douglas Fir-Larch	#2	10-10	16-7	21-0	25-8	26-0	9-10	14-4	18-2	22-3	25-9
	Douglas Fir-Larch	#3	8-7	12-6	15-10	19-5	22-6	7-5	10-10	13-9	16-9	19-6
	Hem-Fir	SS	10-10	17-0	22-5	26-0	26-0	10-10	17-0	22-5	26-0	26-0
	Hem-Fir	#1	10-7	16-8	21-10	26-0	26-0	10-3	14-11	18-11	23-2	26-0
	Hem-Fir	#2	10-1	15-11	20-8	25-3	26-0	9-8	14-2	17-11	21-11	25-5
	Hem-Fir	#3	8-7	12-6	15-10	19-5	22-6	7-5	10-10	13-9	16-9	19-6
	Southern Pine	SS	11-3	17-8	23-4	26-0	26-0	11-3	17-8	23-4	26-0	26-0
	Southern Pine	#1	10-10	17-0	22-5	26-0	26-0	10-6	15-8	19-10	23-2	26-0
	Southern Pine	#2	10-4	15-7	19-8	23-5	26-0	9-0	13-6	17-1	20-3	23-10
	Southern Pine	#3	8-0	11-9	14-10	18-0	21-4	6-11	10-2	12-10	15-7	18-6
	Spruce-Pine-Fir	SS	10-7	16-8	21-11	26-0	26-0	10-7	16-8	21-9	26-0	26-0
	Spruce-Pine-Fir	#1	10-4	16-3	21-0	25-8	26-0	9-10	14-4	18-2	22-3	25-9
	Spruce-Pine-Fir	#2	10-4	16-3	21-0	25-8	26-0	9-10	14-4	18-2	22-3	25-9
	Spruce-Pine-Fir	#3	8-7	12-6	15-10	19-5	22-6	7-5	10-10	13-9	16-9	19-6
16	Douglas Fir-Larch	SS	10-5	16-4	21-7	26-0	26-0	10-5	16-0	20-3	24-9	26-0
	Douglas Fir-Larch	#1	10-0	15-4	19-5	23-9	26-0	9-1	13-3	16-10	20-7	23-10
	Douglas Fir-Larch	#2	9-10	14-4	18-2	22-3	25-9	8-6	12-5	15-9	19-3	22-4
	Douglas Fir-Larch	#3	7-5	10-10	13-9	16-9	19-6	6-5	9-5	11-11	14-6	16-10
	Hem-Fir	SS	9-10	15-6	20-5	26-0	26-0	9-10	15-6	19-11	24-4	26-0
	Hem-Fir	#1	9-8	14-11	18-11	23-2	26-0	8-10	12-11	16-5	20-0	23-3
	Hem-Fir	#2	9-2	14-2	17-11	21-11	25-5	8-5	12-3	15-6	18-11	22-0
	Hem-Fir	#3	7-5	10-10	13-9	16-9	19-6	6-5	9-5	11-11	14-6	16-10
	Southern Pine	SS	10-3	16-1	21-2	26-0	26-0	10-3	16-1	21-2	25-7	26-0
	Southern Pine	#1	9-10	15-6	19-10	23-2	26-0	9-1	13-7	17-2	20-1	23-10
	Southern Pine	#2	9-0	13-6	17-1	20-3	23-10	7-9	11-8	14-9	17-6	20-8
	Southern Pine	#3	6-11	10-2	12-10	15-7	18-6	6-0	8-10	11-2	13-6	16-0
	Spruce-Pine-Fir	SS	9-8	15-2	19-11	25-5	26-0	9-8	14-10	18-10	23-0	26-0
	Spruce-Pine-Fir	#1	9-5	14-4	18-2	22-3	25-9	8-6	12-5	15-9	19-3	22-4
	Spruce-Pine-Fir	#2	9-5	14-4	18-2	22-3	25-9	8-6	12-5	15-9	19-3	22-4
	Spruce-Pine-Fir	#3	7-5	10-10	13-9	16-9	19-6	6-5	9-5	11-11	14-6	16-10

(continued)

CONSTRUCTION

1.04

**TABLE 2308.10.3(1)—continued**  
**RAFTER SPANS FOR COMMON LUMBER SPECIES**  
 (Roof Live Load = 20 pounds per square foot, Ceiling Not Attached to Rafters, L/Δ = 180)

RAFTER SPACING (inches)	SPECIES AND GRADE		DEAD LOAD = 10 pounds per square foot					DEAD LOAD = 20 pounds per square foot				
			2 x 4	2 x 6	2 x 8	2 x 10	2 x 12	2 x 4	2 x 6	2 x 8	2 x 10	2 x 12
			Maximum rafter spans									
			(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)
19.2	Douglas Fir-Larch	SS	9-10	15-5	20-4	25-11	26-0	9-10	14-7	18-6	22-7	26-0
	Douglas Fir-Larch	#1	9-5	14-0	17-9	21-8	25-2	8-4	12-2	15-4	18-9	21-9
	Douglas Fir-Larch	#2	8-11	13-1	16-7	20-3	23-6	7-9	11-4	14-4	17-7	20-4
	Douglas Fir-Larch	#3	6-9	9-11	12-7	15-4	17-9	5-10	8-7	10-10	13-3	15-5
	Hem-Fir	SS	9-3	14-7	19-2	24-6	26-0	9-3	14-4	18-2	22-3	25-9
	Hem-Fir	#1	9-1	13-8	17-4	21-1	24-6	8-1	11-10	15-0	18-4	21-3
	Hem-Fir	#2	8-8	12-11	16-4	20-0	23-2	7-8	11-2	14-2	17-4	20-1
	Hem-Fir	#3	6-9	9-11	12-7	15-4	17-9	5-10	8-7	10-10	13-3	15-5
	Southern Pine	SS	9-8	15-2	19-11	25-5	26-0	9-8	15-2	19-7	23-4	26-0
	Southern Pine	#1	9-3	14-3	18-1	21-2	25-2	8-4	12-4	15-8	18-4	21-9
	Southern Pine	#2	8-2	12-3	15-7	18-6	21-9	7-1	10-8	13-6	16-0	18-10
	Southern Pine	#3	6-4	9-4	11-9	14-3	16-10	5-6	8-1	10-2	12-4	14-7
	Spruce-Pine-Fir	SS	9-1	14-3	18-9	23-11	26-0	9-1	13-7	17-2	21-0	24-4
	Spruce-Pine-Fir	#1	8-10	13-1	16-7	20-3	23-6	7-9	11-4	14-4	17-7	20-4
	Spruce-Pine-Fir	#2	8-10	13-1	16-7	20-3	23-6	7-9	11-4	14-4	17-7	20-4
	Spruce-Pine-Fir	#3	6-9	9-11	12-7	15-4	17-9	5-10	8-7	10-10	13-3	15-5
24	Douglas Fir-Larch	SS	9-1	14-4	18-10	23-4	26-0	8-11	13-1	16-7	20-3	23-5
	Douglas Fir-Larch	#1	8-7	12-6	15-10	19-5	22-6	7-5	10-10	13-9	16-9	19-6
	Douglas Fir-Larch	#2	8-0	11-9	14-10	18-2	21-0	6-11	10-2	12-10	15-8	18-3
	Douglas Fir-Larch	#3	6-1	8-10	11-3	13-8	15-11	5-3	7-8	9-9	11-10	13-9
	Hem-Fir	SS	8-7	13-6	17-10	22-9	26-0	8-7	12-10	16-3	19-10	23-0
	Hem-Fir	#1	8-4	12-3	15-6	18-11	21-11	7-3	10-7	13-5	16-4	19-0
	Hem-Fir	#2	7-11	11-7	14-8	17-10	20-9	6-10	10-0	12-8	15-6	17-11
	Hem-Fir	#3	6-1	8-10	11-3	13-8	15-11	5-3	7-8	9-9	11-10	13-9
	Southern Pine	SS	8-11	14-1	18-6	23-8	26-0	8-11	13-10	17-6	20-10	24-8
	Southern Pine	#1	8-7	12-9	16-2	18-11	22-6	7-5	11-1	14-0	16-5	19-6
	Southern Pine	#2	7-4	11-0	13-11	16-6	19-6	6-4	9-6	12-1	14-4	16-10
	Southern Pine	#3	5-8	8-4	10-6	12-9	15-1	4-11	7-3	9-1	11-0	13-1
	Spruce-Pine-Fir	SS	8-5	13-3	17-5	21-8	25-2	8-4	12-2	15-4	18-9	21-9
	Spruce-Pine-Fir	#1	8-0	11-9	14-10	18-2	21-0	6-11	10-2	12-10	15-8	18-3
	Spruce-Pine-Fir	#2	8-0	11-9	14-10	18-2	21-0	6-11	10-2	12-10	15-8	18-3
	Spruce-Pine-Fir	#3	6-1	8-10	11-3	13-8	15-11	5-3	7-8	9-9	11-10	13-9

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 47.9 N/m<sup>2</sup>.

**TABLE 2308.10.3(2)**  
**RAFTER SPANS FOR COMMON LUMBER SPECIES**  
 (Roof Live Load = 20 pounds per square foot, Ceiling Attached to Rafters, L/Δ = 240)

RAFTER SPACING (inches)	SPECIES AND GRADE		DEAD LOAD = 10 pounds per square foot					DEAD LOAD = 20 pounds per square foot				
			2 x 4	2 x 6	2 x 8	2 x 10	2 x 12	2 x 4	2 x 6	2 x 8	2 x 10	2 x 12
			Maximum rafter spans									
			(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)
12	Douglas Fir-Larch	SS	10-5	16-4	21-7	26-0	26-0	10-5	16-4	21-7	26-0	26-0
	Douglas Fir-Larch	#1	10-0	15-9	20-10	26-0	26-0	10-0	15-4	19-5	23-9	26-0
	Douglas Fir-Larch	#2	9-10	15-6	20-5	25-8	26-0	9-10	14-4	18-2	22-3	25-9
	Douglas Fir-Larch	#3	8-7	12-6	15-10	19-5	22-6	7-5	10-10	13-9	16-9	19-6
	Hem-Fir	SS	9-10	15-6	20-5	26-0	26-0	9-10	15-6	20-5	26-0	26-0
	Hem-Fir	#1	9-8	15-2	19-11	25-5	26-0	9-8	14-11	18-11	23-2	26-0
	Hem-Fir	#2	9-2	14-5	19-0	24-3	26-0	9-2	14-2	17-11	21-11	25-5
	Hem-Fir	#3	8-7	12-6	15-10	19-5	22-6	7-5	10-10	13-9	16-9	19-6
	Southern Pine	SS	10-3	16-1	21-2	26-0	26-0	10-3	16-1	21-2	26-0	26-0
	Southern Pine	#1	9-10	15-6	20-5	26-0	26-0	9-10	15-6	19-10	23-2	26-0
	Southern Pine	#2	9-5	14-9	19-6	23-5	26-0	9-0	13-6	17-1	20-3	23-10
	Southern Pine	#3	8-0	11-9	14-10	18-0	21-4	6-11	10-2	12-10	15-7	18-6
	Spruce-Pine-Fir	SS	9-8	15-2	19-11	25-5	26-0	9-8	15-2	19-11	25-5	26-0
	Spruce-Pine-Fir	#1	9-5	14-9	19-6	24-10	26-0	9-5	14-4	18-2	22-3	25-9
	Spruce-Pine-Fir	#2	9-5	14-9	19-6	24-10	26-0	9-5	14-4	18-2	22-3	25-9
	Spruce-Pine-Fir	#3	8-7	12-6	15-10	19-5	22-6	7-5	10-10	13-9	16-9	19-6
16	Douglas Fir-Larch	SS	9-6	14-11	19-7	25-0	26-0	9-6	14-11	19-7	24-9	26-0
	Douglas Fir-Larch	#1	9-1	14-4	18-11	23-9	26-0	9-1	13-3	16-10	20-7	23-10
	Douglas Fir-Larch	#2	8-11	14-1	18-2	22-3	25-9	8-6	12-5	15-9	19-3	22-4
	Douglas Fir-Larch	#3	7-5	10-10	13-9	16-9	19-6	6-5	9-5	11-11	14-6	16-10
	Hem-Fir	SS	8-11	14-1	18-6	23-8	26-0	8-11	14-1	18-6	23-8	26-0
	Hem-Fir	#1	8-9	13-9	18-1	23-1	26-0	8-9	12-11	16-5	20-0	23-3
	Hem-Fir	#2	8-4	13-1	17-3	21-11	25-5	8-4	12-3	15-6	18-11	22-0
	Hem-Fir	#3	7-5	10-10	13-9	16-9	19-6	6-5	9-5	11-11	14-6	16-10
	Southern Pine	SS	9-4	14-7	19-3	24-7	26-0	9-4	14-7	19-3	24-7	26-0
	Southern Pine	#1	8-11	14-1	18-6	23-2	26-0	8-11	13-7	17-2	20-1	23-10
	Southern Pine	#2	8-7	13-5	17-1	20-3	23-10	7-9	11-8	14-9	17-6	20-8
	Southern Pine	#3	6-11	10-2	12-10	15-7	18-6	6-0	8-10	11-2	13-6	16-0
	Spruce-Pine-Fir	SS	8-9	13-9	18-1	23-1	26-0	8-9	13-9	18-1	23-0	26-0
	Spruce-Pine-Fir	#1	8-7	13-5	17-9	22-3	25-9	8-6	12-5	15-9	19-3	22-4
	Spruce-Pine-Fir	#2	8-7	13-5	17-9	22-3	25-9	8-6	12-5	15-9	19-3	22-4
	Spruce-Pine-Fir	#3	7-5	10-10	13-9	16-9	19-6	6-5	9-5	11-11	14-6	16-10

(continued)

CONSTRUCTION

1.04

**TABLE 2308.10.3(2)—continued**  
**RAFTER SPANS FOR COMMON LUMBER SPECIES**  
 (Roof Live Load = 20 pounds per square foot, Ceiling Attached to Rafters, L/Δ = 240)

RAFTER SPACING (inches)	SPECIES AND GRADE		DEAD LOAD = 10 pounds per square foot					DEAD LOAD = 20 pounds per square foot				
			2 x 4	2 x 6	2 x 8	2 x 10	2 x 12	2 x 4	2 x 6	2 x 8	2 x 10	2 x 12
			Maximum rafter spans									
			(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)
19.2	Douglas Fir-Larch	SS	8-11	14-0	18-5	23-7	26-0	8-11	14-0	18-5	22-7	26-0
	Douglas Fir-Larch	#1	8-7	13-6	17-9	21-8	25-2	8-4	12-2	15-4	18-9	21-9
	Douglas Fir-Larch	#2	8-5	13-1	16-7	20-3	23-6	7-9	11-4	14-4	17-7	20-4
	Douglas Fir-Larch	#3	6-9	9-11	12-7	15-4	17-9	5-10	8-7	10-10	13-3	15-5
	Hem-Fir	SS	8-5	13-3	17-5	22-3	26-0	8-5	13-3	17-5	22-3	25-9
	Hem-Fir	#1	8-3	12-11	17-1	21-1	24-6	8-1	11-10	15-0	18-4	21-3
	Hem-Fir	#2	7-10	12-4	16-3	20-0	23-2	7-8	11-2	14-2	17-4	20-1
	Hem-Fir	#3	6-9	9-11	12-7	15-4	17-9	5-10	8-7	10-10	13-3	15-5
	Southern Pine	SS	8-9	13-9	18-2	23-1	26-0	8-9	13-9	18-2	23-1	26-0
	Southern Pine	#1	8-5	13-3	17-5	21-2	25-2	8-4	12-4	15-8	18-4	21-9
	Southern Pine	#2	8-1	12-3	15-7	18-6	21-9	7-1	10-8	13-6	16-0	18-10
	Southern Pine	#3	6-4	9-4	11-9	14-3	16-10	5-6	8-1	10-2	12-4	14-7
	Spruce-Pine-Fir	SS	8-3	12-11	17-1	21-9	26-0	8-3	12-11	17-1	21-0	24-4
	Spruce-Pine-Fir	#1	8-1	12-8	16-7	20-3	23-6	7-9	11-4	14-4	17-7	20-4
	Spruce-Pine-Fir	#2	8-1	12-8	16-7	20-3	23-6	7-9	11-4	14-4	17-7	20-4
	Spruce-Pine-Fir	#3	6-9	9-11	12-7	15-4	17-9	5-10	8-7	10-10	13-3	15-5
24	Douglas Fir-Larch	SS	8-3	13-0	17-2	21-10	26-0	8-3	13-0	16-7	20-3	23-5
	Douglas Fir-Larch	#1	8-0	12-6	15-10	19-5	22-6	7-5	10-10	13-9	16-9	19-6
	Douglas Fir-Larch	#2	7-10	11-9	14-10	18-2	21-0	6-11	10-2	12-10	15-8	18-3
	Douglas Fir-Larch	#3	6-1	8-10	11-3	13-8	15-11	5-3	7-8	9-9	11-10	13-9
	Hem-Fir	SS	7-10	12-3	16-2	20-8	25-1	7-10	12-3	16-2	19-10	23-0
	Hem-Fir	#1	7-8	12-0	15-6	18-11	21-11	7-3	10-7	13-5	16-4	19-0
	Hem-Fir	#2	7-3	11-5	14-8	17-10	20-9	6-10	10-0	12-8	15-6	17-11
	Hem-Fir	#3	6-1	8-10	11-3	13-8	15-11	5-3	7-8	9-9	11-10	13-9
	Southern Pine	SS	8-1	12-9	16-10	21-6	26-0	8-1	12-9	16-10	20-10	24-8
	Southern Pine	#1	7-10	12-3	16-2	18-11	22-6	7-5	11-1	14-0	16-5	19-6
	Southern Pine	#2	7-4	11-0	13-11	16-6	19-6	6-4	9-6	12-1	14-4	16-10
	Southern Pine	#3	5-8	8-4	10-6	12-9	15-1	4-11	7-3	9-1	11-0	13-1
	Spruce-Pine-Fir	SS	7-8	12-0	15-10	20-2	24-7	7-8	12-0	15-4	18-9	21-9
	Spruce-Pine-Fir	#1	7-6	11-9	14-10	18-2	21-0	6-11	10-2	12-10	15-8	18-3
	Spruce-Pine-Fir	#2	7-6	11-9	14-10	18-2	21-0	6-11	10-2	12-10	15-8	18-3
	Spruce-Pine-Fir	#3	6-1	8-10	11-3	13-8	15-11	5-3	7-8	9-9	11-10	13-9

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 47.9 N/m<sup>2</sup>.

CONSTRUCTION

1.04

**TABLE 2308.10.3(3)**  
**RAFTER SPANS FOR COMMON LUMBER SPECIES**  
 (Ground Snow Load = 30 pounds per square foot, Ceiling Not Attached to Rafters, L/Δ = 180)

RAFTER SPACING (inches)	SPECIES AND GRADE		DEAD LOAD = 10 pounds per square foot					DEAD LOAD = 20 pounds per square foot				
			2 x 4	2 x 6	2 x 8	2 x 10	2 x 12	2 x 4	2 x 6	2 x 8	2 x 10	2 x 12
			Maximum rafter spans									
			(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)
12	Douglas Fir-Larch	SS	10-0	15-9	20-9	26-0	26-0	10-0	15-9	20-1	24-6	26-0
	Douglas Fir-Larch	#1	9-8	14-9	18-8	22-9	26-0	9-0	13-2	16-8	20-4	23-7
	Douglas Fir-Larch	#2	9-5	13-9	17-5	21-4	24-8	8-5	12-4	15-7	19-1	22-1
	Douglas Fir-Larch	#3	7-1	10-5	13-2	16-1	18-8	6-4	9-4	11-9	14-5	16-8
	Hem-Fir	SS	9-6	14-10	19-7	25-0	26-0	9-6	14-10	19-7	24-1	26-0
	Hem-Fir	#1	9-3	14-4	18-2	22-2	25-9	8-9	12-10	16-3	19-10	23-0
	Hem-Fir	#2	8-10	13-7	17-2	21-0	24-4	8-4	12-2	15-4	18-9	21-9
	Hem-Fir	#3	7-1	10-5	13-2	16-1	18-8	6-4	9-4	11-9	14-5	16-8
	Southern Pine	SS	9-10	15-6	20-5	26-0	26-0	9-10	15-6	20-5	25-4	26-0
	Southern Pine	#1	9-6	14-10	19-0	22-3	26-0	9-0	13-5	17-0	19-11	23-7
	Southern Pine	#2	8-7	12-11	16-4	19-5	22-10	7-8	11-7	14-8	17-4	20-5
	Southern Pine	#3	6-7	9-9	12-4	15-0	17-9	5-11	8-9	11-0	13-5	15-10
	Spruce-Pine-Fir	SS	9-3	14-7	19-2	24-6	26-0	9-3	14-7	18-8	22-9	26-0
	Spruce-Pine-Fir	#1	9-1	13-9	17-5	21-4	24-8	8-5	12-4	15-7	19-1	22-1
	Spruce-Pine-Fir	#2	9-1	13-9	17-5	21-4	24-8	8-5	12-4	15-7	19-1	22-1
	Spruce-Pine-Fir	#3	7-1	10-5	13-2	16-1	18-8	6-4	9-4	11-9	14-5	16-8
16	Douglas Fir-Larch	SS	9-1	14-4	18-10	23-9	26-0	9-1	13-9	17-5	21-3	24-8
	Douglas Fir-Larch	#1	8-9	12-9	16-2	19-9	22-10	7-10	11-5	14-5	17-8	20-5
	Douglas Fir-Larch	#2	8-2	11-11	15-1	18-5	21-5	7-3	10-8	13-6	16-6	19-2
	Douglas Fir-Larch	#3	6-2	9-0	11-5	13-11	16-2	5-6	8-1	10-3	12-6	14-6
	Hem-Fir	SS	8-7	13-6	17-10	22-9	26-0	8-7	13-6	17-1	20-10	24-2
	Hem-Fir	#1	8-5	12-5	15-9	19-3	22-3	7-7	11-1	14-1	17-2	19-11
	Hem-Fir	#2	8-0	11-9	14-11	18-2	21-1	7-2	10-6	13-4	16-3	18-10
	Hem-Fir	#3	6-2	9-0	11-5	13-11	16-2	5-6	8-1	10-3	12-6	14-6
	Southern Pine	SS	8-11	14-1	18-6	23-8	26-0	8-11	14-1	18-5	21-11	25-11
	Southern Pine	#1	8-7	13-0	16-6	19-3	22-10	7-10	11-7	14-9	17-3	20-5
	Southern Pine	#2	7-6	11-2	14-2	16-10	19-10	6-8	10-0	12-8	15-1	17-9
	Southern Pine	#3	5-9	8-6	10-8	13-0	15-4	5-2	7-7	9-7	11-7	13-9
	Spruce-Pine-Fir	SS	8-5	13-3	17-5	22-1	25-7	8-5	12-9	16-2	19-9	22-10
	Spruce-Pine-Fir	#1	8-2	11-11	15-1	18-5	21-5	7-3	10-8	13-6	16-6	19-2
	Spruce-Pine-Fir	#2	8-2	11-11	15-1	18-5	21-5	7-3	10-8	13-6	16-6	19-2
	Spruce-Pine-Fir	#3	6-2	9-0	11-5	13-11	16-2	5-6	8-1	10-3	12-6	14-6

(continued)

CONSTRUCTION

1.04

**TABLE 2308.10.3(3)—continued**  
**RAFTER SPANS FOR COMMON LUMBER SPECIES**  
**(Ground Snow Load = 30 pounds per square foot, Ceiling Not Attached to Rafters, L/Δ = 180)**

RAFTER SPACING (inches)	SPECIES AND GRADE		DEAD LOAD = 10 pounds per square foot					DEAD LOAD = 20 pounds per square foot				
			2 x 4	2 x 6	2 x 8	2 x 10	2 x 12	2 x 4	2 x 6	2 x 8	2 x 10	2 x 12
			Maximum rafter spans									
			(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)
19.2	Douglas Fir-Larch	SS	8-7	13-6	17-9	21-8	25-2	8-7	12-6	15-10	19-5	22-6
	Douglas Fir-Larch	#1	7-11	11-8	14-9	18-0	20-11	7-1	10-5	13-2	16-1	18-8
	Douglas Fir-Larch	#2	7-5	10-11	13-9	16-10	19-6	6-8	9-9	12-4	15-1	17-6
	Douglas Fir-Larch	#3	5-7	8-3	10-5	12-9	14-9	5-0	7-4	9-4	11-5	13-2
	Hem-Fir	SS	8-1	12-9	16-9	21-4	24-8	8-1	12-4	15-7	19-1	22-1
	Hem-Fir	#1	7-9	11-4	14-4	17-7	20-4	6-11	10-2	12-10	15-8	18-2
	Hem-Fir	#2	7-4	10-9	13-7	16-7	19-3	6-7	9-7	12-2	14-10	17-3
	Hem-Fir	#3	5-7	8-3	10-5	12-9	14-9	5-0	7-4	9-4	11-5	13-2
	Southern Pine	SS	8-5	13-3	17-5	22-3	26-0	8-5	13-3	16-10	20-0	23-7
	Southern Pine	#1	8-0	11-10	15-1	17-7	20-11	7-1	10-7	13-5	15-9	18-8
	Southern Pine	#2	6-10	10-2	12-11	15-4	18-1	6-1	9-2	11-7	13-9	16-2
	Southern Pine	#3	5-3	7-9	9-9	11-10	14-0	4-8	6-11	8-9	10-7	12-6
	Spruce-Pine-Fir	SS	7-11	12-5	16-5	20-2	23-4	7-11	11-8	14-9	18-0	20-11
	Spruce-Pine-Fir	#1	7-5	10-11	13-9	16-10	19-6	6-8	9-9	12-4	15-1	17-6
	Spruce-Pine-Fir	#2	7-5	10-11	13-9	16-10	19-6	6-8	9-9	12-4	15-1	17-6
	Spruce-Pine-Fir	#3	5-7	8-3	10-5	12-9	14-9	5-0	7-4	9-4	11-5	13-2
24	Douglas Fir-Larch	SS	7-11	12-6	15-10	19-5	22-6	7-8	11-3	14-2	17-4	20-1
	Douglas Fir-Larch	#1	7-1	10-5	13-2	16-1	18-8	6-4	9-4	11-9	14-5	16-8
	Douglas Fir-Larch	#2	6-8	9-9	12-4	15-1	17-6	5-11	8-8	11-0	13-6	15-7
	Douglas Fir-Larch	#3	5-0	7-4	9-4	11-5	13-2	4-6	6-7	8-4	10-2	11-10
	Hem-Fir	SS	7-6	11-10	15-7	19-1	22-1	7-6	11-0	13-11	17-0	19-9
	Hem-Fir	#1	6-11	10-2	12-10	15-8	18-2	6-2	9-1	11-6	14-0	16-3
	Hem-Fir	#2	6-7	9-7	12-2	14-10	17-3	5-10	8-7	10-10	13-3	15-5
	Hem-Fir	#3	5-0	7-4	9-4	11-5	13-2	4-6	6-7	8-4	10-2	11-10
	Southern Pine	SS	7-10	12-3	16-2	20-0	23-7	7-10	11-10	15-0	17-11	21-2
	Southern Pine	#1	7-1	10-7	13-5	15-9	18-8	6-4	9-6	12-0	14-1	16-8
	Southern Pine	#2	6-1	9-2	11-7	13-9	16-2	5-5	8-2	10-4	12-3	14-6
	Southern Pine	#3	4-8	6-11	8-9	10-7	12-6	4-2	6-2	7-10	9-6	11-2
	Spruce-Pine-Fir	SS	7-4	11-7	14-9	18-0	20-11	7-1	10-5	13-2	16-1	18-8
	Spruce-Pine-Fir	#1	6-8	9-9	12-4	15-1	17-6	5-11	8-8	11-0	13-6	15-7
	Spruce-Pine-Fir	#2	6-8	9-9	12-4	15-1	17-6	5-11	8-8	11-0	13-6	15-7
	Spruce-Pine-Fir	#3	5-0	7-4	9-4	11-5	13-2	4-6	6-7	8-4	10-2	11-10

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 47.9 N/m<sup>2</sup>.

CONSTRUCTION

1.04

**TABLE 2308.10.3(5)**  
**RAFTER SPANS FOR COMMON LUMBER SPECIES**  
 (Ground Snow Load = 30 pounds per square foot, Ceiling Attached to Rafters, L/Δ = 240)

RAFTER SPACING (inches)	SPECIES AND GRADE		DEAD LOAD = 10 pounds per square foot					DEAD LOAD = 20 pounds per square foot				
			2 x 4	2 x 6	2 x 8	2 x 10	2 x 12	2 x 4	2 x 6	2 x 8	2 x 10	2 x 12
			Maximum rafter spans									
			(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)
12	Douglas Fir-Larch	SS	9-1	14-4	18-10	24-1	26-0	9-1	14-4	18-10	24-1	26-0
	Douglas Fir-Larch	#1	8-9	13-9	18-2	22-9	26-0	8-9	13-2	16-8	20-4	23-7
	Douglas Fir-Larch	#2	8-7	13-6	17-5	21-4	24-8	8-5	12-4	15-7	19-1	22-1
	Douglas Fir-Larch	#3	7-1	10-5	13-2	16-1	18-8	6-4	9-4	11-9	14-5	16-8
	Hem-Fir	SS	8-7	13-6	17-10	22-9	26-0	8-7	13-6	17-10	22-9	26-0
	Hem-Fir	#1	8-5	13-3	17-5	22-2	25-9	8-5	12-10	16-3	19-10	23-0
	Hem-Fir	#2	8-0	12-7	16-7	21-0	24-4	8-0	12-2	15-4	18-9	21-9
	Hem-Fir	#3	7-1	10-5	13-2	16-1	18-8	6-4	9-4	11-9	14-5	16-8
	Southern Pine	SS	8-11	14-1	18-6	23-8	26-0	8-11	14-1	18-6	23-8	26-0
	Southern Pine	#1	8-7	13-6	17-10	22-3	26-0	8-7	13-5	17-0	19-11	23-7
	Southern Pine	#2	8-3	12-11	16-4	19-5	22-10	7-8	11-7	14-8	17-4	20-5
	Southern Pine	#3	6-7	9-9	12-4	15-0	17-9	5-11	8-9	11-0	13-5	15-10
	Spruce-Pine-Fir	SS	8-5	13-3	17-5	22-3	26-0	8-5	13-3	17-5	22-3	26-0
	Spruce-Pine-Fir	#1	8-3	12-11	17-0	21-4	24-8	8-3	12-4	15-7	19-1	22-1
Spruce-Pine-Fir	#2	8-3	12-11	17-0	21-4	24-8	8-3	12-4	15-7	19-1	22-1	
Spruce-Pine-Fir	#3	7-1	10-5	13-2	16-1	18-8	6-4	9-4	11-9	14-5	16-8	
16	Douglas Fir-Larch	SS	8-3	13-0	17-2	21-10	26-0	8-3	13-0	17-2	21-3	24-8
	Douglas Fir-Larch	#1	8-0	12-6	16-2	19-9	22-10	7-10	11-5	14-5	17-8	20-5
	Douglas Fir-Larch	#2	7-10	11-11	15-1	18-5	21-5	7-3	10-8	13-6	16-6	19-2
	Douglas Fir-Larch	#3	6-2	9-0	11-5	13-11	16-2	5-6	8-1	10-3	12-6	14-6
	Hem-Fir	SS	7-10	12-3	16-2	20-8	25-1	7-10	12-3	16-2	20-8	24-2
	Hem-Fir	#1	7-8	12-0	15-9	19-3	22-3	7-7	11-1	14-1	17-2	19-11
	Hem-Fir	#2	7-3	11-5	14-11	18-2	21-1	7-2	10-6	13-4	16-3	18-10
	Hem-Fir	#3	6-2	9-0	11-5	13-11	16-2	5-6	8-1	10-3	12-6	14-6
	Southern Pine	SS	8-1	12-9	16-10	21-6	26-0	8-1	12-9	16-10	21-6	25-11
	Southern Pine	#1	7-10	12-3	16-2	19-3	22-10	7-10	11-7	14-9	17-3	20-5
	Southern Pine	#2	7-6	11-2	14-2	16-10	19-10	6-8	10-0	12-8	15-1	17-9
	Southern Pine	#3	5-9	8-6	10-8	13-0	15-4	5-2	7-7	9-7	11-7	13-9
	Spruce-Pine-Fir	SS	7-8	12-0	15-10	20-2	24-7	7-8	12-0	15-10	19-9	22-10
	Spruce-Pine-Fir	#1	7-6	11-9	15-1	18-5	21-5	7-3	10-8	13-6	16-6	19-2
Spruce-Pine-Fir	#2	7-6	11-9	15-1	18-5	21-5	7-3	10-8	13-6	16-6	19-2	
Spruce-Pine-Fir	#3	6-2	9-0	11-5	13-11	16-2	5-6	8-1	10-3	12-6	14-6	

(continued)

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1.04

**TABLE 2308.10.3(5)—continued**  
**RAFTER SPANS FOR COMMON LUMBER SPECIES**  
 (Ground Snow Load = 30 pounds per square foot, Ceiling Attached to Rafters, L/Δ = 240)

RAFTER SPACING (inches)	SPECIES AND GRADE		DEAD LOAD = 10 pounds per square foot					DEAD LOAD = 20 pounds per square foot				
			2 x 4	2 x 6	2 x 8	2 x 10	2 x 12	2 x 4	2 x 6	2 x 8	2 x 10	2 x 12
			Maximum rafter spans									
			(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)	(ft. - in.)
19.2	Douglas Fir-Larch	SS	7-9	12-3	16-1	20-7	25-0	7-9	12-3	15-10	19-5	22-6
	Douglas Fir-Larch	#1	7-6	11-8	14-9	18-0	20-11	7-1	10-5	13-2	16-1	18-8
	Douglas Fir-Larch	#2	7-4	10-11	13-9	16-10	19-6	6-8	9-9	12-4	15-1	17-6
	Douglas Fir-Larch	#3	5-7	8-3	10-5	12-9	14-9	5-0	7-4	9-4	11-5	13-2
	Hem-Fir	SS	7-4	11-7	15-3	19-5	23-7	7-4	11-7	15-3	19-1	22-1
	Hem-Fir	#1	7-2	11-4	14-4	17-7	20-4	6-11	10-2	12-10	15-8	18-2
	Hem-Fir	#2	6-10	10-9	13-7	16-7	19-3	6-7	9-7	12-2	14-10	17-3
	Hem-Fir	#3	5-7	8-3	10-5	12-9	14-9	5-0	7-4	9-4	11-5	13-2
	Southern Pine	SS	7-8	12-0	15-10	20-2	24-7	7-8	12-0	15-10	20-0	23-7
	Southern Pine	#1	7-4	11-7	15-1	17-7	20-11	7-1	10-7	13-5	15-9	18-8
	Southern Pine	#2	6-10	10-2	12-11	15-4	18-1	6-1	9-2	11-7	13-9	16-2
	Southern Pine	#3	5-3	7-9	9-9	11-10	14-0	4-8	6-11	8-9	10-7	12-6
	Spruce-Pine-Fir	SS	7-2	11-4	14-11	19-0	23-1	7-2	11-4	14-9	18-0	20-11
	Spruce-Pine-Fir	#1	7-0	10-11	13-9	16-10	19-6	6-8	9-9	12-4	15-1	17-6
	Spruce-Pine-Fir	#2	7-0	10-11	13-9	16-10	19-6	6-8	9-9	12-4	15-1	17-6
	Spruce-Pine-Fir	#3	5-7	8-3	10-5	12-9	14-9	5-0	7-4	9-4	11-5	13-2
24	Douglas Fir-Larch	SS	7-3	11-4	15-0	19-1	22-6	7-3	11-3	14-2	17-4	20-1
	Douglas Fir-Larch	#1	7-0	10-5	13-2	16-1	18-8	6-4	9-4	11-9	14-5	16-8
	Douglas Fir-Larch	#2	6-8	9-9	12-4	15-1	17-6	5-11	8-8	11-0	13-6	15-7
	Douglas Fir-Larch	#3	5-0	7-4	9-4	11-5	13-2	4-6	6-7	8-4	10-2	11-10
	Hem-Fir	SS	6-10	10-9	14-2	18-0	21-11	6-10	10-9	13-11	17-0	19-9
	Hem-Fir	#1	6-8	10-2	12-10	15-8	18-2	6-2	9-1	11-6	14-0	16-3
	Hem-Fir	#2	6-4	9-7	12-2	14-10	17-3	5-10	8-7	10-10	13-3	15-5
	Hem-Fir	#3	5-0	7-4	9-4	11-5	13-2	4-6	6-7	8-4	10-2	11-10
	Southern Pine	SS	7-1	11-2	14-8	18-9	22-10	7-1	11-2	14-8	17-11	21-2
	Southern Pine	#1	6-10	10-7	13-5	15-9	18-8	6-4	9-6	12-0	14-1	16-8
	Southern Pine	#2	6-1	9-2	11-7	13-9	16-2	5-5	8-2	10-4	12-3	14-6
	Southern Pine	#3	4-8	6-11	8-9	10-7	12-6	4-2	6-2	7-10	9-6	11-2
	Spruce-Pine-Fir	SS	6-8	10-6	13-10	17-8	20-11	6-8	10-5	13-2	16-1	18-8
	Spruce-Pine-Fir	#1	6-6	9-9	12-4	15-1	17-6	5-11	8-8	11-0	13-6	15-7
	Spruce-Pine-Fir	#2	6-6	9-9	12-4	15-1	17-6	5-11	8-8	11-0	13-6	15-7
	Spruce-Pine-Fir	#3	5-0	7-4	9-4	11-5	13-2	4-6	6-7	8-4	10-2	11-10

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 47.9 N/m<sup>2</sup>.

(Amend Ord 13-036, 8/20/13)

86. The amendment of Section 2503.1 entitled Inspection., to read as follows:
- 2503.1 Inspection.** Lath and gypsum in fire- resistive construction shall be inspected.
87. The amendment of Section [P]2902.1, entitled Minimum number of fixtures., to read as follows:
- [P]2902.1 Minimum number of fixtures.** Plumbing fixtures shall be provided for the type of occupancy and in the minimum number shown in Table 2902.1. Types of occupancies not shown in Table 2902.1 shall be considered individually by the *building official*. The number of occupants shall be determined by this code unless sufficient data is approved by the *building official* for a different number of occupants. Occupancy classification shall be determined in accordance with Chapter 3.
88. The addition of Section 2902.1.3, entitled Additional fixtures for food preparation facilities., to read as follows:
- 2902.1.3 Additional fixtures for food preparation facilities.** In addition to the fixtures required in this Chapter, all food service facilities shall be provided with additional fixtures set out in this section.
- 2902.1.3.1 Hand washing lavatory.** At least one hand washing lavatory shall be provided for use by employees that is accessible from food preparation, food dispensing and ware washing areas. Additional hand washing lavatories may be required based on convenience of use by employees.
- 2902.1.3.2 Service sink.** In new or remodeled food service establishments, at least one service sink or one floor sink shall be provided so that it is conveniently located for the cleaning of mops or similar wet floor cleaning tools and for the disposal of mop water and similar liquid waste. The location of the service sink(s) and/or mop sink(s) shall be approved by the City of Arlington health department.

## CONSTRUCTION

### 1.04

89. The amendment of [P]Table 2902.1, entitled MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES, to amend footnote “e” and “f” and add footnote “g” to read as follows:

- e. The minimum number of drinking fountains shall comply with Table 2902.1 and Chapter 11. Drinking fountains shall not be installed in toilet rooms.
- f. Drinking fountains are not required for an occupant load 30 or less and for dining and/or drinking establishments.
- g. Where urinals are provided, urinals shall not be substituted for more than 67% of the required water closets in assembly and educational *occupancies*. Urinals shall not be substituted for more than 50% of the required water closets in all other *occupancies*.

90. The amendment of Exception #3 to Section 2902.2 to read as follows:

- 3. Separate facilities shall not be required in mercantile occupancies in which the maximum *occupant load* is 100 or less.

91. The amendment of Section 3006, entitled MACHINE ROOMS, to read as follows:

**3006.1 General.** Elevator machine rooms shall be provided.

**3006.2 Access.** An approved means of access shall be provided to elevator machine rooms and overhead machinery spaces.

**3006.3 Venting.** Elevator machine rooms that contain solid-state equipment for elevator operation shall be provided with an independent ventilation or air-conditioning system to protect against the overheating of the electrical equipment. The system shall be capable of maintaining temperatures within the range established for the elevator equipment.

**3006.4 Pressurization.** The elevator machine room serving a pressurized elevator hoistway shall be pressurized upon activation of a heat or smoke detector located in the elevator machine room.

**3006.5 Machine rooms and machinery spaces.** Elevator machine rooms and machinery spaces shall be enclosed with fire barriers

constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 712, or both. The fire-resistance rating shall not be less than the required rating of the hoistway enclosure served by the machinery. Openings in the fire barriers shall be protected with assemblies having a fire protection rating not less than that required for the hoistway enclosure doors. Storage shall not be permitted within the elevator machine room. The building owner shall provide permanent approved signage at each entry door to the elevator machine room stating "Elevator Machinery – No Storage Allowed."

**Exceptions:**

1. Where machine rooms and machinery spaces do not abut and have no openings to the hoistway enclosure they serve the fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 712, or both, shall be permitted to be reduced to a 1-hour fire-resistance rating.
2. In buildings four stories or less above grade plane when machine room and machinery spaces do not abut and have no openings to the hoistway enclosure they serve, the machine room and machinery spaces are not required to be fire-resistance rated.

**3006.6 Shunt trip.** Where elevator hoistways or elevator machine rooms containing elevator control equipment are protected with automatic sprinklers, a means installed in accordance with NFPA 72, Section 6.16.4, Elevator Shutdown, shall be provided to disconnect automatically the main line power supply to the affected elevator prior to the application of water. This means shall not be self-resetting. The activation of sprinklers outside the hoistway or machine room shall not disconnect the main line power supply.

**3006.7 Plumbing systems.** Plumbing systems shall not be located in elevator equipment rooms.

92. The amendment of Section 3109.2, entitled Definition, to read as follows:

**3109.2 Definition.** The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meaning shown herein.

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**MULTI-UNIT RENTAL COMPLEX** is two or more dwelling units in one or more buildings that are under common ownership, managed by the same owner, managing agent, or management company, and located on the same lot or tract of land or adjacent lots or tracts of land. The term includes a condominium project. The term does not include:

- (A) A facility primarily renting rooms to overnight guests; or
- (B) A single-family home or adjacent single-family homes that are not part of a condominium project.

**POOL DECK** is a flat walking surface consisting of wood, stone, brick, concrete or other similar material located within five feet (5') of the water's edge of a swimming pool or spa.

**PROPERTY OWNERS ASSOCIATION** is an association of property owners for a residential subdivision, condominium, cooperative, townhouse project, or other project involving residential dwellings.

**SELF-CLOSING GATE** is a gate, which closes or shuts automatically, without the aid of human, electrical, solar or battery power after being opened.

**SELF-CLOSING AND SELF-LATCHING DEVICE** is a device that causes a gate to automatically close and latch without human, electrical, solar or battery power.

93. The amendment of Section 3109.3, entitled Public Swimming Pools, to read as follows:

**3109.3 Public Swimming Pools.** Public swimming pools (pools not accessory to a 1- or 2-family dwelling) shall be completely enclosed by a fence that complies with the Health and Sanitation Chapter, Article VII, Public Swimming Pool, Section 7.01.

94. The amendment of Section 3109.4.1.7, entitled Gates., by the addition of an Exception to read as follows:

**EXCEPTION:** Driveway access gates across a paved or improved surface intended for regular vehicle access shall not be located in a swimming pool barrier.

95. The amendment of Section 3401.4, entitled Alternative Compliance., is amended to read as follows:

**3401.4 Alternative compliance.** Work performed in accordance with the *International Existing Building Code* shall be deemed to comply with the provisions of this chapter only with the prior approval of the *building official*.

96. The addition of Section 3401.5, entitled Group R-2 Fire alarms., to read as follows:

**3401.5 Group R-2 Fire alarms.** A fire alarm system shall be installed to existing Group R-2 occupancies more than three stories in height or with more than 16 dwelling units or sleeping units, where the total building remodel or renovation initiated after November 2005 exceeds 30% of the building. When cumulative complex remodel or expansion exceeds 50%, the complex must comply within 18 months of permit application.

**Exceptions:**

1. Where each living unit is separated from other continuous living units by fire barriers having a fire-resistance rating or not less than 0.75 hour, and where each living unit has either its own independent exit or its own independent stairway or ramp discharging at grade.
  2. A separate fire alarm system is not required in buildings that are equipped throughout with an approved supervised automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 and having a local alarm to notify all occupants.
  3. A fire alarm system is not required in buildings that do not have interior corridors serving dwelling units and are protected by an approved automatic sprinkler system installed in accordance with Sections 903.3.1.1 or 903.3.1.2, provided that dwelling units either have a means of egress door opening directly to an exterior exit access that leads directly to the exits or are served by open-ended corridors designed in accordance with Section 1022.6, Exception 4.
97. The amendment of Section 3412.2 entitled Applicability., to read as follows:

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**3412.2 Applicability.** Structures existing prior to June 6, 1961, in which there is work involving additions, alterations or changes of occupancy shall be made to comply with the requirements of this section or the provisions of Sections 3403 through 3409. The provisions in Sections 3412.2.1 through 3412.2.5 shall apply to existing occupancies that will continue to be, or are proposed to be, in Groups A, B, E, F, M, R, S and U. These provisions shall not apply to buildings with occupancies in Group H or I.

(Amend Ord 12-020, 4/24/12)

D. The amendment of the following I.R.C. provisions:

1. The amendment of Section R101.1, entitled Title,, to read as follows:

**R101.1 Title.** These provisions shall be known as the Residential Code for One- and Two-family Dwellings of the City of Arlington, Texas, and shall be cited as such and will be referred to herein as “this code.”

2. The amendment of Section R102.4, entitled Referenced codes and standards., to read as follows:

**R102.4 Referenced codes and standards.** The codes, when specifically adopted, and standards referenced in this code shall be considered part of the requirements of this code to the prescribed extent of each such reference. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standards shall be considered to reference the amendments as well. Any reference made to NFPA 70, or ICC Electrical Code shall mean the Electrical Code as adopted.

Where differences occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.

**EXCEPTION:** Where enforcement of a code provision would violate the conditions of the listing of the equipment or appliance, the conditions of the listing and manufacturer's instructions shall apply.

3. The amendment of Section R114, entitled STOP WORK ORDER, to read as follows:

**R114 STOP WORK ORDER**

**R114.1 Stop Work Order.** Whenever any work is being done contrary to the provisions of this Code, the Building Official may order the work stopped by notice in writing served on any persons engaged in the doing or causing such work to be done. Any such person shall forthwith stop such work until:

- a. He or she is authorized by the Building Official to proceed with the work; or
- b. An appeal perfected pursuant to Section 2.06 of Article II has resulted in a waiver of the condition causing the stop order, or a finding that there is no cause for a stop order.

Failure to stop such work, in addition to penalties and remedies elsewhere set forth, shall void any appeal.

4. The amendment of Section R202, entitled Definitions., to revise the definition of “Townhouse” and add the definitions of “Glazing Area”, “Reclaimed Water”, and “Shall” to read as follows:

**GLAZING AREA.** Total area of the glazed fenestration measured using the rough opening and including sash, curbing or other framing elements that enclose conditioned space. Glazing area includes the area of glazed fenestration assemblies in walls bounding conditioned basements. For doors where the daylight opening area is less than 50 percent of the door area, the glazing area is the daylight opening area. For all other doors, the glazing area is the rough opening area for the door including the door and the frame.

**RECLAIMED WATER** or “Recycled Water” means domestic or municipal wastewater which has been treated to a quality suitable for beneficial use. Reclaimed or recycled water is non-potable water.

**SHALL**, as it applies to an act or duty to be performed by the Building Official pursuant to any section of this Building Code, is discretionary. Its use in all other applications in this Code shall be mandatory.

**TOWNHOUSE.** A single-family dwelling unit constructed in a group of attached units separated by property lines in which each unit extends from foundation to roof and with yard or public way on at least two sides.

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5. The amendment of table R301.2(1), entitled Climatic and Geographic Design Criteria, to fill in as follows:

GROUND SNOW LOAD	WIND DESIGN		SEISMIC DESIGN CATEGORY <sup>f</sup>
	SPEED <sup>d</sup> (mph)	Topographic Effects <sup>k</sup>	
5 lb/ft <sup>2</sup>	90 (3-sec-gust)/76 fastest mile	No	A

SUBJECT TO DAMAGE FROM		
Weathering <sup>a</sup>	Frost line depth <sup>b</sup>	Termite <sup>c</sup>
moderate	6"	very heavy

WINTER DESIGN TEMP <sup>e</sup>	ICE SHIELD UNDER-LAYMENT REQUIRED <sup>h</sup>	FLOOD HAZARDS <sup>g</sup>	AIR FREEZING INDEX <sup>i</sup>	MEAN ANNUAL TEMP <sup>j</sup>
22°F	No	See IBC 1612	150	64.9°F

6. The amendment of Section R301.2.4, Floodplain construction., to read as follows:

**R301.2.4 Construction in flood hazard areas.** Permits for the construction, reconstruction, rehabilitation, addition or other improvements shall be performed in accordance with the provisions of SECTION 1612 FLOOD LOADS of the International Building Code, as amended.

7. The amendment of Section R302.1, entitled Exterior walls., by adding Exception #6, to read as follows:

(Amend Ord 12-020, 4/24/12)

6. Open metal carport structures may be constructed within zero (0) feet of the property line without fire-resistive or opening projection when the location of such is approved as required by other City ordinances.
- 7.1. The amendment of Table R302.1, entitled Exterior Walls, to read as follows during each effective time period:

**TABLE R302.1**  
**EXTERIOR WALLS**  
**Effective from May 24, 2012 to September 30, 2013**

<b>EXTERIOR WALL ELEMENT</b>		<b>MINIMUM FIRE-RESISTANCE RATING</b>	<b>MINIMUM FIRE SEPARATION DISTANCE</b>
Walls	(Fire-resistance rated)	1 hour-tested in accordance with ASTM E 119 or UL 263 with exposure from both sides	< 4 feet 6 inches
	(Not fire-resistance rated)	0 hours	≥ 4 feet 6 inches
Projections	(Fire-resistance rated)	1 hour on the underside	≥ 2 feet to 3 feet 6 inches
	(Not fire-resistance rated)	0 hours	3 feet 6 inches
Openings in walls	Not allowed	N/A	< 3 feet
	25% maximum of wall area	0	3 feet
	Unlimited	0	5 feet
Penetrations	All	Comply with Section R302.4	< 4 feet 6 inches
		None required	4 feet 6 inches

**TABLE R302.1**  
**EXTERIOR WALLS**  
**Effective after September 30, 2013**

EXTERIOR WALL ELEMENT		MINIMUM FIRE-RESISTANCE RATING	MINIMUM FIRE SEPARATION DISTANCE
Walls	(Fire-resistance rated)	1 hour-tested in accordance with ASTM E 119 or UL 263 with exposure from both sides	< 5 feet
	(Not fire-resistance rated)	0 hours	≥ 5 feet
Projections	(Fire-resistance rated)	1 hour on the underside	≥ 2 feet to 5 feet
	(Not fire-resistance rated)	0 hours	5 feet
Openings in walls	Not allowed	N/A	< 3 feet
	25% maximum of wall area	0	3 feet
	Unlimited	0	5 feet
Penetrations	All	Comply with Section R317.3	< 5 feet
		None required	5 feet

(Amend Ord 13-037, 8/20/13)

8. The amendment of Section R302.2, entitled Townhouses., to read as follows:

**R302.2 Townhouses.** Each *townhouse* shall be considered a separate building and shall be separated by fire-resistance-rated wall assemblies meeting the requirements of Section R302.1 for exterior walls.

**Exceptions:** A common 2-hour fire-resistance-rated wall, or one-hour fire resistance rated wall assembly when protected by an approved fire sprinkler system, tested in accordance with ASTM E 119 or UL 263 is permitted for townhouses if such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing. Electrical installations shall be installed in accordance with Chapters 34 through 43. Penetrations of electrical outlet boxes shall be in accordance with Section R302.4.

9. The amendment of Section R302.2.4, entitled Structural independence., to read as follows:

**R302.2.4 Structural independence.** Each individual *townhouse* shall be structurally independent.

**Exceptions:**

1. Foundations supporting *exterior walls* or common walls.
2. Structural roof and wall sheathing from each unit may fasten to the common wall framing.
3. Nonstructural wall and roof coverings.
4. Flashing at termination of roof covering over common wall.
5. *Townhouses* separated by a common 1- or 2-hour fire-resistance-rated wall as provided in Section R302.2.

10. The addition of Exception #3 to Section R302.3, entitled Two-family dwellings., to read as follows:

3. Two-family dwelling units that are also divided by a property line through the structure shall be separated as required for townhouses.

11. The amendment of Section R302.5.2, entitled Duct penetration., to read as follows:

**R302.5.2 Duct penetration.** Ducts in the garage and ducts penetrating the walls or ceilings separating the dwelling from the garage shall be constructed of a minimum No. 26 gage (0.48 mm) sheet steel or other approved material and shall have no openings into the garage and shall be protected as required by Section 302.11, Item 4.

12. The amendment of Section R302.5.3, entitled Other penetrations., to read as follows:

**R302.5.3 Other penetrations.** Penetrations through the separation required in Section R302.6 shall be protected as required by Section R302.11, Item 4.

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13. The amendment of Section R302.7, entitled Under stair protection., to read as follows:

**R302.7 Under stair protection.** Enclosed accessible space under stairs shall have walls, under stair surface and any soffits protected on the enclosed side with 5/8-inch (15.8 mm) fire-rated gypsum board or one-hour fire-resistive construction.

14. The amendment of the exceptions to Section R303.3, entitled Bathrooms., to read as follows:

**Exception:** The glazed areas shall not be required where artificial light and a mechanical ventilation system, complying with one of the following, are provided.

1. The minimum ventilation rates shall be 50 cfm (24 L/s) for intermittent ventilation or 20 cfm (10 L/s) for continuous ventilation. Ventilation air from the space shall be exhausted directly to the outside.
  2. Bathrooms that contain only a water closet, a lavatory, or water closet and a lavatory may be ventilated with an approved mechanical recirculating fan or similar device designed to remove odors from the air.
15. The amendment of SECTION R313, entitled AUTOMATIC FIRE SPRINKLER SYSTEMS, to read as follows:

#### **SECTION R313 AUTOMATIC FIRE SPRINKLER SYSTEMS**

**R313.1 Design and installation.** Automatic fire sprinkler systems, when installed and/or repaired, shall comply with Section 903.3 of the 2009 Edition of the International Building Code as adopted.

16. The amendment of Section R315.2, entitled Where required in existing dwellings., to read as follows:

**R315.2 Where required in existing dwellings.** Where work requiring a building permit for an addition or an alteration to an existing structure that has an attached garage or in existing structure within which fuel-fired appliances exist, carbon monoxide alarms shall be provided in accordance with Section R315.1.

17. The addition of Section R315.4, entitled Power source., to read as follows:

**R315.4 Power source.** Carbon monoxide alarms shall receive their primary power from the building wiring when such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for over current protection.

Exception: Hard-wiring of carbon monoxide alarms in existing areas shall not be required where the addition or alterations do not result in the removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for hard wiring and interconnection without the removal of interior finishes.

18. The amendment of SECTION R322, entitled FLOOD RESISTANT CONSTRUCTION, to read as follows:

**SECTION R322  
FLOOD RESISTANT CONSTRUCTION**

**R322.1 General.** Construction in flood hazard areas. Permits for the construction, reconstruction, rehabilitation, addition or other improvements shall be performed in accordance with the provisions of SECTION 1612 FLOOD LOADS of the International Building Code, as amended.

*{The remainder of this Section is deleted in its entirety}*

19. The amendment of Section R401.2, entitled Requirements., to read as follows:

R401.2 Requirements. Foundation construction shall be capable of accommodating all loads according to Section R301 and of transmitting the resulting loads to the supporting soil. Fill soils that support footings and foundations shall be designed, installed and tested in accordance with accepted engineering practice. Gravel fill used as footings for wood and precast concrete foundations shall comply with Section R403.

Foundations for the construction of new 1- and 2-family homes and foundations for additions to existing 1- and 2-family homes shall be designed by an engineer licensed by the State of Texas.

(Amend Ord 12-020, 4/24/12)

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19.1. The amendment of Tables R502.3.1(1), R502.3.1(2), R502.3.3(1), R502.3.3(2), R502.5(1), R502.5(2), R802.4(1), R802.4(2), R802.5.1(1), R802.5.1(2), R802.5.1(3), and R802.5.1(5), to read as follows:

**TABLE R502.3.1(1)**  
**FLOOR JOIST SPANS FOR COMMON LUMBER SPECIES**  
**(Residential sleeping areas, live load = 30 psf, L/Δ = 360)<sup>a</sup>**

JOIST SPACING (inches)	SPECIES AND GRADE		DEAD LOAD = 10 psf				DEAD LOAD = 20 psf			
			2 x 6	2 x 8	2 x 10	2 x 12	2 x 6	2 x 8	2 x 10	2 x 12
			Maximum floor joist spans							
			(ft - in.)	(ft - in.)	(ft - in.)	(ft - in.)	(ft - in.)	(ft - in.)	(ft - in.)	(ft - in.)
12	Douglas fir-larch	SS	12-6	16-6	21-0	25-7	12-6	16-6	21-0	25-7
	Douglas fir-larch	#1	12-0	15-10	20-3	24-8	12-0	15-7	19-0	22-0
	Douglas fir-larch	#2	11-10	15-7	19-10	23-0	11-6	14-7	17-9	20-7
	Douglas fir-larch	#3	9-8	12-4	15-0	17-5	8-8	11-0	13-5	15-7
	Hem-fir	SS	11-10	15-7	19-10	24-2	11-10	15-7	19-10	24-2
	Hem-fir	#1	11-7	15-3	19-5	23-7	11-7	15-2	18-6	21-6
	Hem-fir	#2	11-0	14-6	18-6	22-6	11-0	14-4	17-6	20-4
	Hem-fir	#3	9-8	12-4	15-0	17-5	8-8	11-0	13-5	15-7
	Southern pine	SS	12-3	16-2	20-8	25-1	12-3	16-2	20-8	25-1
	Southern pine	#1	11-10	15-7	19-10	24-2	11-10	15-7	18-7	22-0
	Southern pine	#2	11-3	14-11	18-1	21-4	10-9	13-8	16-2	19-1
	Southern pine	#3	9-2	11-6	14-0	16-6	8-2	10-3	12-6	14-9
	Spruce-pine-fir	SS	11-7	15-3	19-5	23-7	11-7	15-3	19-5	23-7
	Spruce-pine-fir	#1	11-3	14-11	19-0	23-0	11-3	14-7	17-9	20-7
	Spruce-pine-fir	#2	11-3	14-11	19-0	23-0	11-3	14-7	17-9	20-7
	Spruce-pine-fir	#3	9-8	12-4	15-0	17-5	8-8	11-0	13-5	15-7
16	Douglas fir-larch	SS	11-4	15-0	19-1	23-3	11-4	15-0	19-1	23-0
	Douglas fir-larch	#1	10-11	14-5	18-5	21-4	10-8	13-6	16-5	19-1
	Douglas fir-larch	#2	10-9	14-1	17-2	19-11	9-11	12-7	15-5	17-10
	Douglas fir-larch	#3	8-5	10-8	13-0	15-1	7-6	9-6	11-8	13-6
	Hem-fir	SS	10-9	14-2	18-0	21-11	10-9	14-2	18-0	21-11
	Hem-fir	#1	10-6	13-10	17-8	20-9	10-4	13-1	16-0	18-7
	Hem-fir	#2	10-0	13-2	16-10	19-8	9-10	12-5	15-2	17-7
	Hem-fir	#3	8-5	10-8	13-0	15-1	7-6	9-6	11-8	13-6
	Southern pine	SS	11-2	14-8	18-9	22-10	11-2	14-8	18-9	22-10
	Southern pine	#1	10-9	14-2	18-0	21-4	10-9	13-9	16-1	19-1
	Southern pine	#2	10-3	13-3	15-8	18-6	9-4	11-10	14-0	16-6
	Southern pine	#3	7-11	10-10	12-1	14-4	7-1	8-11	10-10	12-10
	Spruce-pine-fir	SS	10-6	13-10	17-8	21-6	10-6	13-10	17-8	21-4
	Spruce-pine-fir	#1	10-3	13-6	17-2	19-11	9-11	12-7	15-5	17-10
	Spruce-pine-fir	#2	10-3	13-6	17-2	19-11	9-11	12-7	15-5	17-10
	Spruce-pine-fir	#3	8-5	10-8	13-0	15-1	7-6	9-6	11-8	13-6
19.2	Douglas fir-larch	SS	10-8	14-1	18-0	21-10	10-8	14-1	18-0	21-0
	Douglas fir-larch	#1	10-4	13-7	16-9	19-6	9-8	12-4	15-0	17-5
	Douglas fir-larch	#2	10-1	12-10	15-8	18-3	9-1	11-6	14-1	16-3
	Douglas fir-larch	#3	7-8	9-9	11-10	13-9	6-10	8-8	10-7	12-4
	Hem-fir	SS	10-1	13-4	17-0	20-8	10-1	13-4	17-0	20-7
	Hem-fir	#1	9-10	13-0	16-4	19-0	9-6	12-0	14-8	17-0
	Hem-fir	#2	9-5	12-5	15-6	17-1	8-11	11-4	13-10	16-1
	Hem-fir	#3	7-8	9-9	11-10	13-9	6-10	8-8	10-7	12-4
	Southern pine	SS	10-6	13-10	17-8	21-6	10-6	13-10	17-8	21-6
	Southern pine	#1	10-1	13-4	16-5	19-6	9-11	12-7	14-8	17-5
	Southern pine	#2	9-6	12-1	14-4	16-10	8-6	10-10	12-10	15-1
	Southern pine	#3	7-3	9-1	11-0	13-1	6-5	8-2	9-10	11-8
	Spruce-pine-fir	SS	9-10	13-0	16-7	20-2	9-10	13-0	16-7	19-6
	Spruce-pine-fir	#1	9-8	12-9	15-8	18-3	9-1	11-6	14-1	16-3
	Spruce-pine-fir	#2	9-8	12-9	15-8	18-3	9-1	11-6	14-1	16-3
	Spruce-pine-fir	#3	7-8	9-9	11-10	13-9	6-10	8-8	10-7	12-4

(continued)

**TABLE R502.3.1(1) — continued**  
**FLOOR JOIST SPANS FOR COMMON LUMBER SPECIES**  
**(Residential sleeping areas, live load = 30 psf, L/Δ = 360)<sup>a</sup>**

24	Douglas fir-larch	SS	9-11	13-1	16-8	20-3	9-11	13-1	16-2	18-9
	Douglas fir-larch	#1	9-7	12-4	15-0	17-5	8-8	11-0	13-5	15-7
	Douglas fir-larch	#2	9-1	11-6	14-1	16-3	8-1	10-3	12-7	14-7
	Douglas fir-larch	#3	6-10	8-8	10-7	12-4	6-2	7-9	9-6	11-0
	Hem-fir	SS	9-4	12-4	15-9	19-2	9-4	12-4	15-9	18-5
	Hem-fir	#1	9-2	12-0	14-8	17-0	8-6	10-9	13-1	15-2
	Hem-fir	#2	8-9	11-4	13-10	16-1	8-0	10-2	12-5	14-4
	Hem-fir	#3	6-10	8-8	10-7	12-4	6-2	7-9	9-6	11-0
	Southern pine	SS	9-9	12-10	16-5	19-11	9-9	12-10	16-5	19-8
	Southern pine	#1	9-4	12-4	14-8	17-5	8-10	11-3	13-1	15-7
	Southern pine	#2	8-6	10-10	12-10	15-1	7-7	9-8	11-5	13-6
	Southern pine	#3	6-5	8-2	9-10	11-8	5-9	7-3	8-10	10-5
	Spruce-pine-fir	SS	9-2	12-1	15-5	18-9	9-2	12-1	15-0	17-5
	Spruce-pine-fir	#1	8-11	11-6	14-1	16-3	8-1	10-3	12-7	14-7
	Spruce-pine-fir	#2	8-11	11-6	14-1	16-3	8-1	10-3	12-7	14-7
	Spruce-pine-fir	#3	6-10	8-8	10-7	12-4	6-2	7-9	9-6	11-0

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kPa.

**Note:** Check sources for availability of lumber in lengths greater than 20 feet.

- a. Dead load limits for townhouses in Seismic Design Category C and all structures in Seismic Design Categories D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub> shall be determined in accordance with Section R301.2.2.2.1.

**TABLE R502.3.1(2)**  
**FLOOR JOIST SPANS FOR COMMON LUMBER SPECIES**  
**(Residential living areas, live load = 40 psf, L/Δ = 360)<sup>b</sup>**

JOIST SPACING (inches)	SPECIES AND GRADE	DEAD LOAD = 10 psf				DEAD LOAD = 20 psf				
		2 x 6	2 x 8	2 x 10	2 x 12	2 x 6	2 x 8	2 x 10	2 x 12	
		Maximum floor joist spans								
		(ft - in.)	(ft - in.)	(ft - in.)	(ft - in.)	(ft - in.)	(ft - in.)	(ft - in.)	(ft - in.)	
12	Douglas fir-larch	SS	11-4	15-0	19-1	23-3	11-4	15-0	19-1	23-3
	Douglas fir-larch	#1	10-11	14-5	18-5	22-0	10-11	14-2	17-4	20-1
	Douglas fir-larch	#2	10-9	14-2	17-9	20-7	10-6	13-3	16-3	18-10
	Douglas fir-larch	#3	8-8	11-0	13-5	15-7	7-11	10-0	12-3	14-3
	Hem-fir	SS	10-9	14-2	18-0	21-11	10-9	14-2	18-0	21-11
	Hem-fir	#1	10-6	13-10	17-8	21-6	10-6	13-10	16-11	19-7
	Hem-fir	#2	10-0	13-2	16-10	20-4	10-0	13-1	16-0	18-6
	Hem-fir	#3	8-8	11-0	13-5	15-7	7-11	10-0	12-3	14-3
	Southern pine	SS	11-2	14-8	18-9	22-10	11-2	14-8	18-9	22-10
	Southern pine	#1	10-9	14-2	18-0	21-11	10-9	14-2	16-11	20-1
	Southern pine	#2	10-3	13-6	16-2	19-1	9-10	12-6	14-9	17-5
	Southern pine	#3	8-2	10-3	12-6	14-9	7-5	9-5	11-5	13-6
	Spruce-pine-fir	SS	10-6	13-10	17-8	21-6	10-6	13-10	17-8	21-6
	Spruce-pine-fir	#1	10-3	13-6	17-3	20-7	10-3	13-3	16-3	18-10
	Spruce-pine-fir	#2	10-3	13-6	17-3	20-7	10-3	13-3	16-3	18-10
Spruce-pine-fir	#3	8-8	11-0	13-5	15-7	7-11	10-0	12-3	14-3	
16	Douglas fir-larch	SS	10-4	13-7	17-4	21-1	10-4	13-7	17-4	21-0
	Douglas fir-larch	#1	9-11	13-1	16-5	19-1	9-8	12-4	15-0	17-5
	Douglas fir-larch	#2	9-9	12-7	15-5	17-10	9-1	11-6	14-1	16-3
	Douglas fir-larch	#3	7-6	9-6	11-8	13-6	6-10	8-8	10-7	12-4
	Hem-fir	SS	9-9	12-10	16-5	19-11	9-9	12-10	16-5	19-11
	Hem-fir	#1	9-6	12-7	16-0	18-7	9-6	12-0	14-8	17-0
	Hem-fir	#2	9-1	12-0	15-2	17-7	8-11	11-4	13-10	16-1
	Hem-fir	#3	7-6	9-6	11-8	13-6	6-10	8-8	10-7	12-4
	Southern pine	SS	10-2	13-4	17-0	20-9	10-2	13-4	17-0	20-9
	Southern pine	#1	9-9	12-10	16-1	19-1	9-9	12-7	14-8	17-5
	Southern pine	#2	9-4	11-10	14-0	16-6	8-6	10-10	12-10	15-1
	Southern pine	#3	7-1	8-11	10-10	12-10	6-5	8-2	9-10	11-8
	Spruce-pine-fir	SS	9-6	12-7	16-0	19-6	9-6	12-7	16-0	19-6
	Spruce-pine-fir	#1	9-4	12-3	15-5	17-10	9-1	11-6	14-1	16-3
	Spruce-pine-fir	#2	9-4	12-3	15-5	17-10	9-1	11-6	14-1	16-3
Spruce-pine-fir	#3	7-6	9-6	11-8	13-6	6-10	8-8	10-7	12-4	

(continued)

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**TABLE R502.3.1(2) — continued**  
**FLOOR JOIST SPANS FOR COMMON LUMBER SPECIES**  
 (Residential living areas, live load = 40 psf, L/Δ = 360)<sup>b</sup>

JOIST SPACING (inches)	SPECIES AND GRADE	DEAD LOAD = 10 psf				DEAD LOAD = 20 psf				
		2 x 6	2 x 8	2 x 10	2 x 12	2 x 6	2 x 8	2 x 10	2 x 12	
		Maximum floor joist spans								
		(ft - in.)	(ft - in.)	(ft - in.)	(ft - in.)	(ft - in.)	(ft - in.)	(ft - in.)	(ft - in.)	
19.2	Douglas fir-larch	SS	9-8	12-10	16-4	19-10	9-8	12-10	16-4	19-2
	Douglas fir-larch	#1	9-4	12-4	15-0	17-5	8-10	11-3	13-8	15-11
	Douglas fir-larch	#2	9-1	11-6	14-1	16-3	8-3	10-6	12-10	14-10
	Douglas fir-larch	#3	6-10	8-8	10-7	12-4	6-3	7-11	9-8	11-3
	Hem-fir	SS	9-2	12-1	15-5	18-9	9-2	12-1	15-5	18-9
	Hem-fir	#1	9-0	11-10	14-8	17-0	8-8	10-11	13-4	15-6
	Hem-fir	#2	8-7	11-3	13-10	16-1	8-2	10-4	12-8	14-8
	Hem-fir	#3	6-10	8-8	10-7	12-4	6-3	7-11	9-8	11-3
	Southern pine	SS	9-6	12-7	16-0	19-6	9-6	12-7	16-0	19-6
	Southern pine	#1	9-2	12-1	14-8	17-5	9-0	11-5	13-5	15-11
	Southern pine	#2	8-6	10-10	12-10	15-1	7-9	9-10	11-8	13-9
	Southern pine	#3	6-5	8-2	9-10	11-8	5-11	7-5	9-0	10-8
	Spruce-pine-fir	SS	9-0	11-10	15-1	18-4	9-0	11-10	15-1	17-9
	Spruce-pine-fir	#	8-9	11-6	14-1	16-3	8-3	10-6	12-10	14-10
	Spruce-pine-fir	#2	8-9	11-6	14-1	16-3	8-3	10-6	12-10	14-10
	Spruce-pine-fir	#3	6-10	8-8	10-7	12-4	6-3	7-11	9-8	11-3
24	Douglas fir-larch	SS	9-0	11-11	15-2	18-5	9-0	11-11	14-9	17-1
	Douglas fir-larch	#1	8-8	11-0	13-5	15-7	7-11	10-0	12-3	14-3
	Douglas fir-larch	#2	8-1	10-3	12-7	14-7	7-5	9-5	11-6	13-4
	Douglas fir-larch	#3	6-2	7-9	9-6	11-0	5-7	7-1	8-8	10-1
	Hem-fir	SS	8-6	11-3	14-4	17-5	8-6	11-3	14-4	16-10 <sup>a</sup>
	Hem-fir	#1	8-4	10-9	13-1	15-2	7-9	9-9	11-11	13-10
	Hem-fir	#2	7-11	10-2	12-5	14-4	7-4	9-3	11-4	13-1
	Hem-fir	#3	6-2	7-9	9-6	11-0	5-7	7-1	8-8	10-1
	Southern pine	SS	8-10	11-8	14-11	18-1	8-10	11-8	14-11	18-0
	Southern pine	#1	8-6	11-3	13-1	15-7	8-1	10-3	12-0	14-3
	Southern pine	#2	7-7	9-8	11-5	13-6	7-0	8-10	10-5	12-4
	Southern pine	#3	5-9	7-3	8-10	10-5	5-3	6-8	8-1	9-6
	Spruce-pine-fir	SS	8-4	11-0	14-0	17-0	8-4	11-0	13-8	15-11
	Spruce-pine-fir	#1	8-1	10-3	12-7	14-7	7-5	9-5	11-6	13-4
	Spruce-pine-fir	#2	8-1	10-3	12-7	14-7	7-5	9-5	11-6	13-4
	Spruce-pine-fir	#3	6-2	7-9	9-6	11-0	5-7	7-1	8-8	10-1

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kPa.

**Note:** Check sources for availability of lumber in lengths greater than 20 feet.

- a. End bearing length shall be increased to 2 inches.
- b. Dead load limits for townhouses in Seismic Design Category C and all structures in Seismic Design Categories D<sub>0</sub>, D<sub>1</sub>, and D<sub>2</sub> shall be determined in accordance with Section R301.2.2.2.1.

**TABLE R502.3.3(1)**  
**CANTILEVER SPANS FOR FLOOR JOISTS SUPPORTING LIGHT-FRAME EXTERIOR BEARING WALL AND ROOF ONLY<sup>a, b, c, f, g, h</sup>**  
**(Floor Live Load ≤ 40 psf, Roof Live Load ≤ 20 psf)**

Member & Spacing	Maximum Cantilever Span (Uplift Force at Backspan Support in Lbs.) <sup>d, e</sup>											
	Ground Snow Load											
	≤ 20 psf			30 psf			50 psf			70 psf		
	Roof Width			Roof Width			Roof Width			Roof Width		
	24 ft	32 ft	40 ft	24 ft	32 ft	40 ft	24 ft	32 ft	40 ft	24 ft	32 ft	40 ft
2 × 8 @ 12"	20" (177)	15" (227)	—	18" (209)	—	—	—	—	—	—	—	—
2 × 10 @ 16"	29" (228)	21" (297)	16" (364)	26" (271)	18" (354)	—	20" (375)	—	—	—	—	—
2 × 10 @ 12"	36" (166)	26" (219)	20" (270)	34" (198)	22" (263)	16" (324)	26" (277)	—	—	19" (356)	—	—
2 × 12 @ 16"	—	32" (287)	25" (356)	36" (263)	29" (345)	21" (428)	29" (367)	20" (484)	—	23" (471)	—	—
2 × 12 @ 12"	—	42" (209)	31" (263)	—	37" (253)	27" (317)	36" (271)	27" (358)	17" (447)	31" (348)	19" (462)	—
2 × 12 @ 8"	—	48" (136)	45" (169)	—	48" (164)	38" (206)	—	40" (233)	26" (294)	36" (230)	29" (304)	18" (379)

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kPa.

- a. Tabulated values are for clear-span roof supported solely by exterior bearing walls.
- b. Spans are based on minimum design properties for No. 2 Grade lumber of Douglas fir-larch, hem-fir, and spruce-pine-fir for repetitive (three or more) members. No. 1 or better grade lumber shall be used for southern pine.
- c. Ratio of backspan to cantilever span shall be at least 3:1.
- d. Connections capable of resisting the indicated uplift force shall be provided at the backspan support.
- e. Uplift force is for a backspan to cantilever span ratio of 3:1. Tabulated uplift values are permitted to be reduced by multiplying by a factor equal to 3 divided by the actual backspan ratio provided (3/backspan ratio).
- f. See Section R301.2.2.2.5, Item 1, for additional limitations on cantilevered floor joists for detached one- and two-family dwellings in Seismic Design Category D<sub>0</sub>, D<sub>1</sub>, or D<sub>2</sub> and townhouses in Seismic Design Category C, D<sub>0</sub>, D<sub>1</sub> or D<sub>2</sub>.
- g. A full-depth rim joist shall be provided at the unsupported end of the cantilever joists. Solid blocking shall be provided at the supported end.
- h. Linear interpolation shall be permitted for building widths and ground snow loads other than shown.

**TABLE R502.3.3(2)**  
**CANTILEVER SPANS FOR FLOOR JOISTS SUPPORTING EXTERIOR BALCONY<sup>a, b, e, f</sup>**

Member Size	Spacing	Maximum Cantilever Span (Uplift Force at Backspan Support in lb) <sup>c, d</sup>		
		Ground Snow Load		
		≤ 30 psf	50 psf	70 psf
2 × 8	12"	42" (139)	39" (156)	34" (165)
2 × 8	16"	36" (151)	34" (171)	29" (180)
2 × 10	12"	61" (164)	57" (189)	49" (201)
2 × 10	16"	53" (180)	49" (208)	42" (220)
2 × 10	24"	43" (212)	40" (241)	34" (255)
2 × 12	16"	72" (228)	67" (260)	57" (268)
2 × 12	24"	58" (279)	54" (319)	47" (330)

For SI: 1 inch = 25.4 mm, 1 pound per square foot = 0.0479 kPa.

- a. Spans are based on minimum design properties for No. 2 Grade lumber of Douglas fir-larch, hem-fir, and spruce-pine-fir for repetitive (three or more) members. No. 1 or better grade lumber shall be used for southern pine.
- b. Ratio of backspan to cantilever span shall be at least 2:1.
- c. Connections capable of resisting the indicated uplift force shall be provided at the backspan support.
- d. Uplift force is for a backspan to cantilever span ratio of 2:1. Tabulated uplift values are permitted to be reduced by multiplying by a factor equal to 2 divided by the actual backspan ratio provided (2/backspan ratio).
- e. A full-depth rim joist shall be provided at the unsupported end of the cantilever joists. Solid blocking shall be provided at the supported end.
- f. Linear interpolation shall be permitted for ground snow loads other than shown.

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**TABLE R502.5(1)**  
**GIRDER SPANS<sup>a,b</sup> AND HEADER SPANS<sup>a,b</sup> FOR EXTERIOR BEARING WALLS**  
 (Maximum spans for Douglas fir-larch, hem-fir, southern pine and spruce-pine-fir<sup>b</sup> and required number of jack studs)

GIRDERS AND HEADERS SUPPORTING	SIZE	GROUND SNOW LOAD (psf) <sup>e</sup>																	
		30						50						70					
		Building width <sup>c</sup> (feet)																	
		20		28		36		20		28		36		20		28		36	
Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>		
Roof and ceiling	2-2 x 4	3-6	1	3-2	1	2-10	1	3-2	1	2-9	1	2-6	1	2-10	1	2-6	1	2-3	1
	2-2 x 6	5-5	1	4-8	1	4-2	1	4-8	1	4-1	1	3-8	2	4-2	1	3-8	2	3-3	2
	2-2 x 8	6-10	1	5-11	2	5-4	2	5-11	2	5-2	2	4-7	2	5-4	2	4-7	2	4-1	2
	2-2 x 10	8-5	2	7-3	2	6-6	2	7-3	2	6-3	2	5-7	2	6-6	2	5-7	2	5-0	2
	2-2 x 12	9-9	2	8-5	2	7-6	2	8-5	2	7-3	2	6-6	2	7-6	2	6-6	2	5-10	3
	3-2 x 8	8-4	1	7-5	1	6-8	1	7-5	1	6-5	2	5-9	2	6-8	1	5-9	2	5-2	2
	3-2 x 10	10-6	1	9-1	2	8-2	2	9-1	2	7-10	2	7-0	2	8-2	2	7-0	2	6-4	2
	3-2 x 12	12-2	2	10-7	2	9-5	2	10-7	2	9-2	2	8-2	2	9-5	2	8-2	2	7-4	2
	4-2 x 8	9-2	1	8-4	1	7-8	1	8-4	1	7-5	1	6-8	1	7-8	1	6-8	1	5-11	2
	4-2 x 10	11-8	1	10-6	1	9-5	2	10-6	1	9-1	2	8-2	2	9-5	2	8-2	2	7-3	2
4-2 x 12	14-1	1	12-2	2	10-11	2	12-2	2	10-7	2	9-5	2	10-11	2	9-5	2	8-5	2	
Roof, ceiling and one center-bearing floor	2-2 x 4	3-1	1	2-9	1	2-5	1	2-9	1	2-5	1	2-2	1	2-7	1	2-3	1	2-0	1
	2-2 x 6	4-6	1	4-0	1	3-7	2	4-1	1	3-7	2	3-3	2	3-9	2	3-3	2	2-11	2
	2-2 x 8	5-9	2	5-0	2	4-6	2	5-2	2	4-6	2	4-1	2	4-9	2	4-2	2	3-9	2
	2-2 x 10	7-0	2	6-2	2	5-6	2	6-4	2	5-6	2	5-0	2	5-9	2	5-1	2	4-7	3
	2-2 x 12	8-1	2	7-1	2	6-5	2	7-4	2	6-5	2	5-9	3	6-8	2	5-10	3	5-3	3
	3-2 x 8	7-2	1	6-3	2	5-8	2	6-5	2	5-8	2	5-1	2	5-11	2	5-2	2	4-8	2
	3-2 x 10	8-9	2	7-8	2	6-11	2	7-11	2	6-11	2	6-3	2	7-3	2	6-4	2	5-8	2
	3-2 x 12	10-2	2	8-11	2	8-0	2	9-2	2	8-0	2	7-3	2	8-5	2	7-4	2	6-7	2
	4-2 x 8	8-1	1	7-3	1	6-7	1	7-5	1	6-6	1	5-11	2	6-10	1	6-0	2	5-5	2
	4-2 x 10	10-1	1	8-10	2	8-0	2	9-1	2	8-0	2	7-2	2	8-4	2	7-4	2	6-7	2
4-2 x 12	11-9	2	10-3	2	9-3	2	10-7	2	9-3	2	8-4	2	9-8	2	8-6	2	7-7	2	
Roof, ceiling and one clear span floor	2-2 x 4	2-8	1	2-4	1	2-1	1	2-7	1	2-3	1	2-0	1	2-5	1	2-1	1	1-10	1
	2-2 x 6	3-11	1	3-5	2	3-0	2	3-10	2	3-4	2	3-0	2	3-6	2	3-1	2	2-9	2
	2-2 x 8	5-0	2	4-4	2	3-10	2	4-10	2	4-2	2	3-9	2	4-6	2	3-11	2	3-6	2
	2-2 x 10	6-1	2	5-3	2	4-8	2	5-11	2	5-1	2	4-7	3	5-6	2	4-9	2	4-3	3
	2-2 x 12	7-1	2	6-1	3	5-5	3	6-10	2	5-11	3	5-4	3	6-4	2	5-6	3	5-0	3
	3-2 x 8	6-3	2	5-5	2	4-10	2	6-1	2	5-3	2	4-8	2	5-7	2	4-11	2	4-5	2
	3-2 x 10	7-7	2	6-7	2	5-11	2	7-5	2	6-5	2	5-9	2	6-10	2	6-0	2	5-4	2
	3-2 x 12	8-10	2	7-8	2	6-10	2	8-7	2	7-5	2	6-8	2	7-11	2	6-11	2	6-3	2
	4-2 x 8	7-2	1	6-3	2	5-7	2	7-0	1	6-1	2	5-5	2	6-6	1	5-8	2	5-1	2
	4-2 x 10	8-9	2	7-7	2	6-10	2	8-7	2	7-5	2	6-7	2	7-11	2	6-11	2	6-2	2
4-2 x 12	10-2	2	8-10	2	7-11	2	9-11	2	8-7	2	7-8	2	9-2	2	8-0	2	7-2	2	
Roof, ceiling and two center-bearing floors	2-2 x 4	2-7	1	2-3	1	2-0	1	2-6	1	2-2	1	1-11	1	2-4	1	2-0	1	1-9	1
	2-2 x 6	3-9	2	3-3	2	2-11	2	3-8	2	3-2	2	2-10	2	3-5	2	3-0	2	2-8	2
	2-2 x 8	4-9	2	4-2	2	3-9	2	4-7	2	4-0	2	3-8	2	4-4	2	3-9	2	3-5	2
	2-2 x 10	5-9	2	5-1	2	4-7	3	5-8	2	4-11	2	4-5	3	5-3	2	4-7	3	4-2	3
	2-2 x 12	6-8	2	5-10	3	5-3	3	6-6	2	5-9	3	5-2	3	6-1	3	5-4	3	4-10	3
	3-2 x 8	5-11	2	5-2	2	4-8	2	5-9	2	5-1	2	4-7	2	5-5	2	4-9	2	4-3	2
	3-2 x 10	7-3	2	6-4	2	5-8	2	7-1	2	6-2	2	5-7	2	6-7	2	5-9	2	5-3	2
	3-2 x 12	8-5	2	7-4	2	6-7	2	8-2	2	7-2	2	6-5	3	7-8	2	6-9	2	6-1	3
	4-2 x 8	6-10	1	6-0	2	5-5	2	6-8	1	5-10	2	5-3	2	6-3	2	5-6	2	4-11	2
	4-2 x 10	8-4	2	7-4	2	6-7	2	8-2	2	7-2	2	6-5	2	7-7	2	6-8	2	6-0	2
4-2 x 12	9-8	2	8-6	2	7-8	2	9-5	2	8-3	2	7-5	2	8-10	2	7-9	2	7-0	2	

*(continued)*

**TABLE R502.5(1)—continued**  
**GIRDER SPANS<sup>a,b</sup> AND HEADER SPANS<sup>a,b</sup> FOR EXTERIOR BEARING WALLS**  
**(Maximum spans for Douglas fir-larch, hem-fir, southern pine and spruce-pine-fir<sup>b</sup> and required number of jack studs)**

GIRDERS AND HEADERS SUPPORTING	SIZE	GROUND SNOW LOAD (psf) <sup>e</sup>																	
		30						50						70					
		Building width <sup>c</sup> (feet)																	
		20		28		36		20		28		36		20		28		36	
Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>		
Roof, ceiling, and two clear span floors	2-2 × 4	2-1	1	1-8	1	1-6	2	2-0	1	1-8	1	1-5	2	2-0	1	1-8	1	1-5	2
	2-2 × 6	3-1	2	2-8	2	2-4	2	3-0	2	2-7	2	2-3	2	2-11	2	2-7	2	2-3	2
	2-2 × 8	3-10	2	3-4	2	3-0	3	3-10	2	3-4	2	2-11	3	3-9	2	3-3	2	2-11	3
	2-2 × 10	4-9	2	4-1	3	3-8	3	4-8	2	4-0	3	3-7	3	4-7	3	4-0	3	3-6	3
	2-2 × 12	5-6	3	4-9	3	4-3	3	5-5	3	4-8	3	4-2	3	5-4	3	4-7	3	4-1	4
	3-2 × 8	4-10	2	4-2	2	3-9	2	4-9	2	4-1	2	3-8	2	4-8	2	4-1	2	3-8	2
	3-2 × 10	5-11	2	5-1	2	4-7	3	5-10	2	5-0	2	4-6	3	5-9	2	4-11	2	4-5	3
	3-2 × 12	6-10	2	5-11	3	5-4	3	6-9	2	5-10	3	5-3	3	6-8	2	5-9	3	5-2	3
	4-2 × 8	5-7	2	4-10	2	4-4	2	5-6	2	4-9	2	4-3	2	5-5	2	4-8	2	4-2	2
	4-2 × 10	6-10	2	5-11	2	5-3	2	6-9	2	5-10	2	5-2	2	6-7	2	5-9	2	5-1	2
4-2 × 12	7-11	2	6-10	2	6-2	3	7-9	2	6-9	2	6-0	3	7-8	2	6-8	2	5-11	3	

For SI: 1 inch = 25.4 mm, 1 pound per square foot = 0.0479 kPa.

- a. Spans are given in feet and inches.
- b. Spans are based on minimum design properties for No. 2 Grade lumber of Douglas fir-larch, hem-fir, and spruce-pine-fir. No. 1 or better grade lumber shall be used for southern pine.
- c. Building width is measured perpendicular to the ridge. For widths between those shown, spans are permitted to be interpolated.
- d. NJ - Number of jack studs required to support each end. Where the number of required jack studs equals one, the header is permitted to be supported by an approved framing anchor attached to the full-height wall stud and to the header.
- e. Use 30 psf ground snow load for cases in which ground snow load is less than 30 psf and the roof live load is equal to or less than 20 psf.

# CONSTRUCTION

## 1.04

**TABLE R502.5(2)  
GIRDER SPANS<sup>a,b</sup> AND HEADER SPANS<sup>a,b</sup> FOR INTERIOR BEARING WALLS**

**(Maximum spans for Douglas fir-larch, hem-fir, southern pine and spruce-pine-fir<sup>b</sup> and required number of jack studs)**

HEADERS AND GIRDERS SUPPORTING	SIZE	BUILDING Width <sup>c</sup> (feet)					
		20		28		36	
		Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>	Span	NJ <sup>d</sup>
One floor only	2-2 × 4	3-1	1	2-8	1	2-5	1
	2-2 × 6	4-6	1	3-11	1	3-6	1
	2-2 × 8	5-9	1	5-0	2	4-5	2
	2-2 × 10	7-0	2	6-1	2	5-5	2
	2-2 × 12	8-1	2	7-0	2	6-3	2
	3-2 × 8	7-2	1	6-3	1	5-7	2
	3-2 × 10	8-9	1	7-7	2	6-9	2
	3-2 × 12	10-2	2	8-10	2	7-10	2
	4-2 × 8	9-0	1	7-8	1	6-9	1
	4-2 × 10	10-1	1	8-9	1	7-10	2
4-2 × 12	11-9	1	10-2	2	9-1	2	
Two floors	2-2 × 4	2-2	1	1-10	1	1-7	1
	2-2 × 6	3-2	2	2-9	2	2-5	2
	2-2 × 8	4-1	2	3-6	2	3-2	2
	2-2 × 10	4-11	2	4-3	2	3-10	3
	2-2 × 12	5-9	2	5-0	3	4-5	3
	3-2 × 8	5-1	2	4-5	2	3-11	2
	3-2 × 10	6-2	2	5-4	2	4-10	2
	3-2 × 12	7-2	2	6-3	2	5-7	3
	4-2 × 8	6-1	1	5-3	2	4-8	2
	4-2 × 10	7-2	2	6-2	2	5-6	2
4-2 × 12	8-4	2	7-2	2	6-5	2	

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

- Spans are given in feet and inches.
- Spans are based on minimum design properties for No. 2 Grade lumber of Douglas fir-larch, hem-fir, and spruce-pine-fir. No. 1 or better grade lumber shall be used for southern pine.
- Building width is measured perpendicular to the ridge. For widths between those shown, spans are permitted to be interpolated.
- NJ - Number of jack studs required to support each end. Where the number of required jack studs equals one, the header is permitted to be supported by an approved framing anchor attached to the full-height wall stud and to the header.

**TABLE R802.4(1)**  
**CEILING JOIST SPANS FOR COMMON LUMBER SPECIES**  
(Uninhabitable attics without storage, live load = 10 psf, L/Δ = 240)

CEILING JOIST SPACING (inches)	SPECIES AND GRADE		DEAD LOAD = 5 psf			
			2 × 4	2 × 6	2 × 8	2 × 10
			Maximum ceiling joist spans			
			(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)
12	Douglas fir-larch	SS	13-2	20-8	Note a	Note a
	Douglas fir-larch	#1	12-8	19-11	Note a	Note a
	Douglas fir-larch	#2	12-5	19-6	25-8	Note a
	Douglas fir-larch	#3	10-10	15-10	20-1	24-6
	Hem-fir	SS	12-5	19-6	25-8	Note a
	Hem-fir	#1	12-2	19-1	25-2	Note a
	Hem-fir	#2	11-7	18-2	24-0	Note a
	Hem-fir	#3	10-10	15-10	20-1	24-6
	Southern pine	SS	12-11	20-3	Note a	Note a
	Southern pine	#1	12-5	19-6	25-8	Note a
	Southern pine	#2	11-10	18-8	24-7	Note a
	Southern pine	#3	10-1	14-11	18-9	22-9
	Spruce-pine-fir	SS	12-2	19-1	25-2	Note a
	Spruce-pine-fir	#1	11-10	18-8	24-7	Note a
	Spruce-pine-fir	#2	11-10	18-8	24-7	Note a
	Spruce-pine-fir	#3	10-10	15-10	20-1	24-6
16	Douglas fir-larch	SS	11-11	18-9	24-8	Note a
	Douglas fir-larch	#1	11-6	18-1	23-10	Note a
	Douglas fir-larch	#2	11-3	17-8	23-0	Note a
	Douglas fir-larch	#3	9-5	13-9	17-5	21-3
	Hem-fir	SS	11-3	17-8	23-4	Note a
	Hem-fir	#1	11-0	17-4	22-10	Note a
	Hem-fir	#2	10-6	16-6	21-9	Note a
	Hem-fir	#3	9-5	13-9	17-5	21-3
	Southern pine	SS	11-9	18-5	24-3	Note a
	Southern pine	#1	11-3	17-8	23-4	Note a
	Southern pine	#2	10-9	16-11	21-7	25-7
	Southern pine	#3	8-9	12-11	16-3	19-9
	Spruce-pine-fir	SS	11-0	17-4	22-10	Note a
	Spruce-pine-fir	#1	10-9	16-11	22-4	Note a
	Spruce-pine-fir	#2	10-9	16-11	22-4	Note a
	Spruce-pine-fir	#3	9-5	13-9	17-5	21-3
19.2	Douglas fir-larch	SS	11-3	17-8	23-3	Note a
	Douglas fir-larch	#1	10-10	17-0	22-5	Note a
	Douglas fir-larch	#2	10-7	16-7	21-0	25-8
	Douglas fir-larch	#3	8-7	12-6	15-10	19-5
	Hem-fir	SS	10-7	16-8	21-11	Note a
	Hem-fir	#1	10-4	16-4	21-6	Note a
	Hem-fir	#2	9-11	15-7	20-6	25-3
	Hem-fir	#3	8-7	12-6	15-10	19-5
	Southern -pine	SS	11-0	17-4	22-10	Note a
	Southern pine	#1	10-7	16-8	22-0	Note a
	Southern pine	#2	10-2	15-7	19-8	23-5
	Southern pine	#3	8-0	11-9	14-10	18-0
	Spruce-pine-fir	SS	10-4	16-4	21-6	Note a
	Spruce-pine-fir	#1	10-2	15-11	21-0	25-8
	Spruce-pine-fir	#2	10-2	15-11	21-0	25-8
	Spruce-pine-fir	#3	8-7	12-6	15-10	19-5

(continued)

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**TABLE R802.4(1)—continued**  
**CEILING JOIST SPANS FOR COMMON LUMBER SPECIES**  
**(Uninhabitable attics without storage, live load = 10 psf, L/Δ = 240)**

CEILING JOIST SPACING (inches)	SPECIES AND GRADE		DEAD LOAD = 5 psf			
			2 x 4	2 x 6	2 x 8	2 x 10
			Maximum ceiling joist spans			
			(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)
24	Douglas fir-larch	SS	10-5	16-4	21-7	Note a
	Douglas fir-larch	#1	10-0	15-9	20-1	24-6
	Douglas fir-larch	#2	9-10	14-10	18-9	22-11
	Douglas fir-larch	#3	7-8	11-2	14-2	17-4
	Hem-fir	SS	9-10	15-6	20-5	Note a
	Hem-fir	#1	9-8	15-2	19-7	23-11
	Hem-fir	#2	9-2	14-5	18-6	22-7
	Hem-fir	#3	7-8	11-2	14-2	17-4
	Southern pine	SS	10-3	16-1	21-2	Note a
	Southern pine	#1	9-10	15-6	20-5	24-0
	Southern pine	#2	9-3	13-11	17-7	20-11
	Southern pine	#3	7-2	10-6	13-3	16-1
	Spruce-pine-fir	SS	9-8	15-2	19-11	25-5
	Spruce-pine-fir	#1	9-5	14-9	18-9	22-11
	Spruce-pine-fir	#2	9-5	14-9	18-9	22-11
	Spruce-pine-fir	#3	7-8	11-2	14-2	17-4

Check sources for availability of lumber in lengths greater than 20 feet.

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479kPa.

a. Span exceeds 26 feet in length.

**TABLE R802.4(2)**  
**CEILING JOIST SPANS FOR COMMON LUMBER SPECIES**  
 (Uninhabitable attics with limited storage, live load = 20 psf, L/Δ = 240)

CEILING JOIST SPACING (inches)	SPECIES AND GRADE	DEAD LOAD = 10 psf				
		2 x 4	2 x 6	2 x 8	2 x 10	
		Maximum ceiling joist spans				
		(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	
12	Douglas fir-larch	SS	10-5	16-4	21-7	Note a
	Douglas fir-larch	#1	10-0	15-9	20-1	24-6
	Douglas fir-larch	#2	9-10	14-10	18-9	22-11
	Douglas fir-larch	#3	7-8	11-2	14-2	17-4
	Hem-fir	SS	9-10	15-6	20-5	Note a
	Hem-fir	#1	9-8	15-2	19-7	23-11
	Hem-fir	#2	9-2	14-5	18-6	22-7
	Hem-fir	#3	7-8	11-2	14-2	17-4
	Southern pine	SS	10-3	16-1	21-2	Note a
	Southern pine	#1	9-10	15-6	20-5	24-0
	Southern pine	#2	9-3	13-11	17-7	20-11
	Southern pine	#3	7-2	10-6	13-3	16-1
	Spruce-pine-fir	SS	9-8	15-2	19-11	25-5
	Spruce-pine-fir	#1	9-5	14-9	18-9	22-11
	Spruce-pine-fir	#2	9-5	14-9	18-9	22-11
Spruce-pine-fir	#3	7-8	11-2	14-2	17-4	
16	Douglas fir-larch	SS	9-6	14-11	19-7	25-0
	Douglas fir-larch	#1	9-1	13-9	17-5	21-3
	Douglas fir-larch	#2	8-9	12-10	16-3	19-10
	Douglas fir-larch	#3	6-8	9-8	12-4	15-0
	Hem-fir	SS	8-11	14-1	18-6	23-8
	Hem-fir	#1	8-9	13-5	16-10	20-8
	Hem-fir	#2	8-4	12-8	16-0	19-7
	Hem-fir	#3	6-8	9-8	12-4	15-0
	Southern pine	SS	9-4	14-7	19-3	24-7
	Southern pine	#1	8-11	14-0	17-9	20-9
	Southern pine	#2	8-0	12-0	15-3	18-1
	Southern pine	#3	6-2	9-2	11-6	14-0
	Spruce-pine-fir	SS	8-9	13-9	18-1	23-1
	Spruce-pine-fir	#1	8-7	12-10	16-3	19-10
	Spruce-pine-fir	#2	8-7	12-10	16-3	19-10
Spruce-pine-fir	#3	6-8	9-8	12-4	15-0	
19.2	Douglas fir-larch	SS	8-11	14-0	18-5	23-4
	Douglas fir-larch	#1	8-7	12-6	15-10	19-5
	Douglas fir-larch	#2	8-0	11-9	14-10	18-2
	Douglas fir-larch	#3	6-1	8-10	11-3	13-8
	Hem-fir	SS	8-5	13-3	17-5	22-3
	Hem-fir	#1	8-3	12-3	15-6	18-11
	Hem-fir	#2	7-10	11-7	14-8	17-10
	Hem-fir	#3	6-1	8-10	11-3	13-8
	Southern pine	SS	8-9	13-9	18-2	23-1
	Southern pine	#1	8-5	12-9	16-2	18-11
	Southern pine	#2	7-4	11-0	13-11	16-6
	Southern pine	#3	5-8	8-4	10-6	12-9
	Spruce-pine-fir	SS	8-3	12-11	17-1	21-8
	Spruce-pine-fir	#1	8-0	11-9	14-10	18-2
	Spruce-pine-fir	#2	8-0	11-9	14-10	18-2
Spruce-pine-fir	#3	6-1	8-10	11-3	13-8	

(continued)

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**TABLE R802.4(2)—continued**  
**CEILING JOIST SPANS FOR COMMON LUMBER SPECIES**  
 (Uninhabitable attics with limited storage, live load = 20 psf, L/Δ = 240)

CEILING JOIST SPACING (inches)	SPECIES AND GRADE	DEAD LOAD = 10 psf			
		2 x 4	2 x 6	2 x 8	2 x 10
		Maximum ceiling joist spans			
		(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)
24	Douglas fir-larch SS	8-3	13-0	17-1	20-11
	Douglas fir-larch #1	7-8	11-2	14-2	17-4
	Douglas fir-larch #2	7-2	10-6	13-3	16-3
	Douglas fir-larch #3	5-5	7-11	10-0	12-3
	Hem-fir SS	7-10	12-3	16-2	20-6
	Hem-fir #1	7-6	10-11	13-10	16-11
	Hem-fir #2	7-1	10-4	13-1	16-0
	Hem-fir #3	5-5	7-11	10-0	12-3
	Southern pine SS	8-1	12-9	16-10	21-6
	Southern pine #1	7-8	11-5	14-6	16-11
	Southern pine #2	6-7	9-10	12-6	14-9
	Southern pine #3	5-1	7-5	9-5	11-5
	Spruce-pine-fir SS	7-8	12-0	15-10	19-5
	Spruce-pine-fir #1	7-2	10-6	13-3	16-3
	Spruce-pine-fir #2	7-2	10-6	13-3	16-3
	Spruce-pine-fir #3	5-5	7-11	10-0	12-3

Check sources for availability of lumber in lengths greater than 20 feet.

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479kPa.

a. Span exceeds 26 feet in length.

**TABLE R802.5.1(1)**  
**RAFTER SPANS FOR COMMON LUMBER SPECIES**  
 (Roof live load=20 psf, ceiling not attached to rafters, L/Δ = 180)

RAFTER SPACING (inches)	SPECIES AND GRADE		DEAD LOAD = 10 psf					DEAD LOAD = 20 psf				
			2 x 4	2 x 6	2 x 8	2 x 10	2 x 12	2 x 4	2 x 6	2 x 8	2 x 10	2 x 12
			Maximum rafter spans <sup>a</sup>									
		(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	
12	Douglas fir-larch	SS	11-6	18-0	23-9	Note b	Note b	11-6	18-0	23-5	Note b	Note b
	Douglas fir-larch	#1	11-1	17-4	22-5	Note b	Note b	10-6	15-4	19-5	23-9	Note b
	Douglas fir-larch	#2	10-10	16-7	21-0	25-8	Note b	9-10	14-4	18-2	22-3	25-9
	Douglas fir-larch	#3	8-7	12-6	15-10	19-5	22-6	7-5	10-10	13-9	16-9	19-6
	Hem-fir	SS	10-10	17-0	22-5	Note b	Note b	10-10	17-0	22-5	Note b	Note b
	Hem-fir	#1	10-7	16-8	21-10	Note b	Note b	10-3	14-11	18-11	23-2	Note b
	Hem-fir	#2	10-1	15-11	20-8	25-3	Note b	9-8	14-2	17-11	21-11	25-5
	Hem-fir	#3	8-7	12-6	15-10	19-5	22-6	7-5	10-10	13-9	16-9	19-6
	Southern pine	SS	11-3	17-8	23-4	Note b	Note b	11-3	17-8	23-4	Note b	Note b
	Southern pine	#1	10-10	17-0	22-5	Note b	Note b	10-6	15-8	19-10	23-2	Note b
	Southern pine	#2	10-4	15-7	19-8	23-5	Note b	9-0	13-6	17-1	20-3	23-10
	Southern pine	#3	8-0	11-9	14-10	18-0	21-4	6-11	10-2	12-10	15-7	18-6
	Spruce-pine-fir	SS	10-7	16-8	21-11	Note b	Note b	10-7	16-8	21-9	Note b	Note b
	Spruce-pine-fir	#1	10-4	16-3	21-0	25-8	Note b	9-10	14-4	18-2	22-3	25-9
	Spruce-pine-fir	#2	10-4	16-3	21-0	25-8	Note b	9-10	14-4	18-2	22-3	25-9
	Spruce-pine-fir	#3	8-7	12-6	15-10	19-5	22-6	7-5	10-10	13-9	16-9	19-6
16	Douglas fir-larch	SS	10-5	16-4	21-7	Note b	Note b	10-5	16-0	20-3	24-9	Note b
	Douglas fir-larch	#1	10-0	15-4	19-5	23-9	Note b	9-1	13-3	16-10	20-7	23-10
	Douglas fir-larch	#2	9-10	14-4	18-2	22-3	25-9	8-6	12-5	15-9	19-3	22-4
	Douglas fir-larch	#3	7-5	10-10	13-9	16-9	19-6	6-5	9-5	11-11	14-6	16-10
	Hem-fir	SS	9-10	15-6	20-5	Note b	Note b	9-10	15-6	19-11	24-4	Note b
	Hem-fir	#1	9-8	14-11	18-11	23-2	Note b	8-10	12-11	16-5	20-0	23-3
	Hem-fir	#2	9-2	14-2	17-11	21-11	25-5	8-5	12-3	15-6	18-11	22-0
	Hem-fir	#3	7-5	10-10	13-9	16-9	19-6	6-5	9-5	11-11	14-6	16-10
	Southern pine	SS	10-3	16-1	21-2	Note b	Note b	10-3	16-1	21-2	25-7	Note b
	Southern pine	#1	9-10	15-6	19-10	23-2	Note b	9-1	13-7	17-2	20-1	23-10
	Southern pine	#2	9-0	13-6	17-1	20-3	23-10	7-9	11-8	14-9	17-6	20-8
	Southern pine	#3	6-11	10-2	12-10	15-7	18-6	6-0	8-10	11-2	13-6	16-0
	Spruce-pine-fir	SS	9-8	15-2	19-11	25-5	Note b	9-8	14-10	18-10	23-0	Note b
	Spruce-pine-fir	#1	9-5	14-4	18-2	22-3	25-9	8-6	12-5	15-9	19-3	22-4
	Spruce-pine-fir	#2	9-5	14-4	18-2	22-3	25-9	8-6	12-5	15-9	19-3	22-4
	Spruce-pine-fir	#3	7-5	10-10	13-9	16-9	19-6	6-5	9-5	11-11	14-6	16-10
19.2	Douglas fir-larch	SS	9-10	15-5	20-4	25-11	Note b	9-10	14-7	18-6	22-7	Note b
	Douglas fir-larch	#1	9-5	14-0	17-9	21-8	25-2	8-4	12-2	15-4	18-9	21-9
	Douglas fir-larch	#2	8-11	13-1	16-7	20-3	23-6	7-9	11-4	14-4	17-7	20-4
	Douglas fir-larch	#3	6-9	9-11	12-7	15-4	17-9	5-10	8-7	10-10	13-3	15-5
	Hem-fir	SS	9-3	14-7	19-2	24-6	Note b	9-3	14-4	18-2	22-3	25-9
	Hem-fir	#1	9-1	13-8	17-4	21-1	24-6	8-1	11-10	15-0	18-4	21-3
	Hem-fir	#2	8-8	12-11	16-4	20-0	23-2	7-8	11-2	14-2	17-4	20-1
	Hem-fir	#3	6-9	9-11	12-7	15-4	17-9	5-10	8-7	10-10	13-3	15-5
	Southern pine	SS	9-8	15-2	19-11	25-5	Note b	9-8	15-2	19-7	23-4	Note b
	Southern pine	#1	9-3	14-3	18-1	21-2	25-2	8-4	12-4	15-8	18-4	21-9
	Southern pine	#2	8-2	12-3	15-7	18-6	21-9	7-1	10-8	13-6	16-0	18-10
	Southern pine	#3	6-4	9-4	11-9	14-3	16-10	5-6	8-1	10-2	12-4	14-7
	Spruce-pine-fir	SS	9-1	14-3	18-9	23-11	Note b	9-1	13-7	17-2	21-0	24-4
	Spruce-pine-fir	#1	8-10	13-1	16-7	20-3	23-6	7-9	11-4	14-4	17-7	20-4
	Spruce-pine-fir	#2	8-10	13-1	16-7	20-3	23-6	7-9	11-4	14-4	17-7	20-4
	Spruce-pine-fir	#3	6-9	9-11	12-7	15-4	17-9	5-10	8-7	10-10	13-3	15-5

(continued)

# CONSTRUCTION

## 1.04

**TABLE R802.5.1(1)—continued**  
**RAFTER SPANS FOR COMMON LUMBER SPECIES**  
**(Roof live load=20 psf, ceiling not attached to rafters, L/Δ = 180)**

RAFTER SPACING (inches)	SPECIES AND GRADE	DEAD LOAD = 10 psf					DEAD LOAD = 20 psf				
		2 x 4	2 x 6	2 x 8	2 x 10	2 x 12	2 x 4	2 x 6	2 x 8	2 x 10	2 x 12
		Maximum rafter spans <sup>a</sup>									
		(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)
24	Douglas fir-larch SS	9-1	14-4	18-10	23-4	Note b	8-11	13-1	16-7	20-3	23-5
	Douglas fir-larch #1	8-7	12-6	15-10	19-5	22-6	7-5	10-10	13-9	16-9	19-6
	Douglas fir-larch #2	8-0	11-9	14-10	18-2	21-0	6-11	10-2	12-10	15-8	18-3
	Douglas fir-larch #3	6-1	8-10	11-3	13-8	15-11	5-3	7-8	9-9	11-10	13-9
	Hem-fir SS	8-7	13-6	17-10	22-9	Note b	8-7	12-10	16-3	19-10	23-0
	Hem-fir #1	8-4	12-3	15-6	18-11	21-11	7-3	10-7	13-5	16-4	19-0
	Hem-fir #2	7-11	11-7	14-8	17-10	20-9	6-10	10-0	12-8	15-6	17-11
	Hem-fir #3	6-1	8-10	11-3	13-8	15-11	5-3	7-8	9-9	11-10	13-9
	Southern pine SS	8-11	14-1	18-6	23-8	Note b	8-11	13-10	17-6	20-10	24-8
	Southern pine #1	8-7	12-9	16-2	18-11	22-6	7-5	11-1	14-0	16-5	19-6
	Southern pine #2	7-4	11-0	13-11	16-6	19-6	6-4	9-6	12-1	14-4	16-10
	Southern pine #3	5-8	8-4	10-6	12-9	15-1	4-11	7-3	9-1	11-0	13-1
	Spruce-pine-fir SS	8-5	13-3	17-5	21-8	25-2	8-4	12-2	15-4	18-9	21-9
	Spruce-pine-fir #1	8-0	11-9	14-10	18-2	21-0	6-11	10-2	12-10	15-8	18-3
	Spruce-pine-fir #2	8-0	11-9	14-10	18-2	21-0	6-11	10-2	12-10	15-8	18-3
	Spruce-pine-fir #3	6-1	8-10	11-3	13-8	15-11	5-3	7-8	9-9	11-10	13-9

Check sources for availability of lumber in lengths greater than 20 feet.

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kPa.

- a. The tabulated rafter spans assume that ceiling joists are located at the bottom of the attic space or that some other method of resisting the outward push of the rafters on the bearing walls, such as rafter ties, is provided at that location. When ceiling joists or rafter ties are located higher in the attic space, the rafter spans shall be multiplied by the factors given below:

$H_C/H_R$	Rafter Span Adjustment Factor
1/3	0.67
1/4	0.76
1/5	0.83
1/6	0.90
1/7.5 or less	1.00

where:

$H_C$  = Height of ceiling joists or rafter ties measured vertically above the top of the rafter support walls.

$H_R$  = Height of roof ridge measured vertically above the top of the rafter support walls.

- b. Span exceeds 26 feet in length.

**TABLE R802.5.1(2)**  
**RAFTER SPANS FOR COMMON LUMBER SPECIES**  
 (Roof live load=20 psf, ceiling attached to rafters, L/Δ = 240)

RAFTER SPACING (inches)	SPECIES AND GRADE	DEAD LOAD = 10 psf					DEAD LOAD = 20 psf				
		2 x 4	2 x 6	2 x 8	2 x 10	2 x 12	2 x 4	2 x 6	2 x 8	2 x 10	2 x 12
		Maximum rafter spans <sup>a</sup>									
		(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)
12	Douglas fir-larch SS	10-5	16-4	21-7	Note b	Note b	10-5	16-4	21-7	Note b	Note b
	Douglas fir-larch #1	10-0	15-9	20-10	Note b	Note b	10-0	15-4	19-5	23-9	Note b
	Douglas fir-larch #2	9-10	15-6	20-5	25-8	Note b	9-10	14-4	18-2	22-3	25-9
	Douglas fir-larch #3	8-7	12-6	15-10	19-5	22-6	7-5	10-10	13-9	16-9	19-6
	Hem-fir SS	9-10	15-6	20-5	Note b	Note b	9-10	15-6	20-5	Note b	Note b
	Hem-fir #1	9-8	15-2	19-11	25-5	Note b	9-8	14-11	18-11	23-2	Note b
	Hem-fir #2	9-2	14-5	19-0	24-3	Note b	9-2	14-2	17-11	21-11	25-5
	Hem-fir #3	8-7	12-6	15-10	19-5	22-6	7-5	10-10	13-9	16-9	19-6
	Southern pine SS	10-3	16-1	21-2	Note b	Note b	10-3	16-1	21-2	Note b	Note b
	Southern pine #1	9-10	15-6	20-5	Note b	Note b	9-10	15-6	19-10	23-2	Note b
	Southern pine #2	9-5	14-9	19-6	23-5	Note b	9-0	13-6	17-1	20-3	23-10
	Southern pine #3	8-0	11-9	14-10	18-0	21-4	6-11	10-2	12-10	15-7	18-6
	Spruce-pine-fir SS	9-8	15-2	19-11	25-5	Note b	9-8	15-2	19-11	25-5	Note b
	Spruce-pine-fir #1	9-5	14-9	19-6	24-10	Note b	9-5	14-4	18-2	22-3	25-9
	Spruce-pine-fir #2	9-5	14-9	19-6	24-10	Note b	9-5	14-4	18-2	22-3	25-9
	Spruce-pine-fir #3	8-7	12-6	15-10	19-5	22-6	7-5	10-10	13-9	16-9	19-6
16	Douglas fir-larch SS	9-6	14-11	19-7	25-0	Note b	9-6	14-11	19-7	24-9	Note b
	Douglas fir-larch #1	9-1	14-4	18-11	23-9	Note b	9-1	13-3	16-10	20-7	23-10
	Douglas fir-larch #2	8-11	14-1	18-2	22-3	25-9	8-6	12-5	15-9	19-3	22-4
	Douglas fir-larch #3	7-5	10-10	13-9	16-9	19-6	6-5	9-5	11-11	14-6	16-10
	Hem-fir SS	8-11	14-1	18-6	23-8	Note b	8-11	14-1	18-6	23-8	Note b
	Hem-fir #1	8-9	13-9	18-1	23-1	Note b	8-9	12-11	16-5	20-0	23-3
	Hem-fir #2	8-4	13-1	17-3	21-11	25-5	8-4	12-3	15-6	18-11	22-0
	Hem-fir #3	7-5	10-10	13-9	16-9	19-6	6-5	9-5	11-11	14-6	16-10
	Southern pine SS	9-4	14-7	19-3	24-7	Note b	9-4	14-7	19-3	24-7	Note b
	Southern pine #1	8-11	14-1	18-6	23-2	Note b	8-11	13-7	17-2	20-1	23-10
	Southern pine #2	8-7	13-5	17-1	20-3	23-10	7-9	11-8	14-9	17-6	20-8
	Southern pine #3	6-11	10-2	12-10	15-7	18-6	6-0	8-10	11-2	13-6	16-0
	Spruce-pine-fir SS	8-9	13-9	18-1	23-1	Note b	8-9	13-9	18-1	23-0	Note b
	Spruce-pine-fir #1	8-7	13-5	17-9	22-3	25-9	8-6	12-5	15-9	19-3	22-4
	Spruce-pine-fir #2	8-7	13-5	17-9	22-3	25-9	8-6	12-5	15-9	19-3	22-4
	Spruce-pine-fir #3	7-5	10-10	13-9	16-9	19-6	6-5	9-5	11-11	14-6	16-10
19.2	Douglas fir-larch SS	8-11	14-0	18-5	23-7	Note b	8-11	14-0	18-5	22-7	Note b
	Douglas fir-larch #1	8-7	13-6	17-9	21-8	25-2	8-4	12-2	15-4	18-9	21-9
	Douglas fir-larch #2	8-5	13-1	16-7	20-3	23-6	7-9	11-4	14-4	17-7	20-4
	Douglas fir-larch #3	6-9	9-11	12-7	15-4	17-9	5-10	8-7	10-10	13-3	15-5
	Hem-fir SS	8-5	13-3	17-5	22-3	Note b	8-5	13-3	17-5	22-3	25-9
	Hem-fir #1	8-3	12-11	17-1	21-1	24-6	8-1	11-10	15-0	18-4	21-3
	Hem-fir #2	7-10	12-4	16-3	20-0	23-2	7-8	11-2	14-2	17-4	20-1
	Hem-fir #3	6-9	9-11	12-7	15-4	17-9	5-10	8-7	10-10	13-3	15-5
	Southern pine SS	8-9	13-9	18-2	23-1	Note b	8-9	13-9	18-2	23-1	Note b
	Southern pine #1	8-5	13-3	17-5	21-2	25-2	8-4	12-4	15-8	18-4	21-9
	Southern pine #2	8-1	12-3	15-7	18-6	21-9	7-1	10-8	13-6	16-0	18-10
	Southern pine #3	6-4	9-4	11-9	14-3	16-10	5-6	8-1	10-2	12-4	14-7
	Spruce-pine-fir SS	8-3	12-11	17-1	21-9	Note b	8-3	12-11	17-1	21-0	24-4
	Spruce-pine-fir #1	8-1	12-8	16-7	20-3	23-6	7-9	11-4	14-4	17-7	20-4
	Spruce-pine-fir #2	8-1	12-8	16-7	20-3	23-6	7-9	11-4	14-4	17-7	20-4
	Spruce-pine-fir #3	6-9	9-11	12-7	15-4	17-9	5-10	8-7	10-10	13-3	15-5

(continued)

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TABLE R802.5.1(2)—continued  
RAFTER SPANS FOR COMMON LUMBER SPECIES  
(Roof live load=20 psf, ceiling attached to rafters, L/Δ = 240)

RAFTER SPACING (inches)	SPECIES AND GRADE	DEAD LOAD = 10 psf					DEAD LOAD = 20 psf				
		2 x 4	2 x 6	2 x 8	2 x 10	2 x 12	2 x 4	2 x 6	2 x 8	2 x 10	2 x 12
		Maximum rafter spans <sup>a</sup>									
		(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)
24	Douglas fir-larch SS	8-3	13-0	17-2	21-10	Note b	8-3	13-0	16-7	20-3	23-5
	Douglas fir-larch #1	8-0	12-6	15-10	19-5	22-6	7-5	10-10	13-9	16-9	19-6
	Douglas fir-larch #2	7-10	11-9	14-10	18-2	21-0	6-11	10-2	12-10	15-8	18-3
	Douglas fir-larch #3	6-1	8-10	11-3	13-8	15-11	5-3	7-8	9-9	11-10	13-9
	Hem-fir SS	7-10	12-3	16-2	20-8	25-1	7-10	12-3	16-2	19-10	23-0
	Hem-fir #1	7-8	12-0	15-6	18-11	21-11	7-3	10-7	13-5	16-4	19-0
	Hem-fir #2	7-3	11-5	14-8	17-10	20-9	6-10	10-0	12-8	15-6	17-11
	Hem-fir #3	6-1	8-10	11-3	13-8	15-11	5-3	7-8	9-9	11-10	13-9
	Southern pine SS	8-1	12-9	16-10	21-6	Note b	8-1	12-9	16-10	20-10	24-8
	Southern pine #1	7-10	12-3	16-2	18-11	22-6	7-5	11-1	14-0	16-5	19-6
	Southern pine #2	7-4	11-0	13-11	16-6	19-6	6-4	9-6	12-1	14-4	16-10
	Southern pine #3	5-8	8-4	10-6	12-9	15-1	4-11	7-3	9-1	11-0	13-1
	Spruce-pine-fir SS	7-8	12-0	15-10	20-2	24-7	7-8	12-0	15-4	18-9	21-9
	Spruce-pine-fir #1	7-6	11-9	14-10	18-2	21-0	6-11	10-2	12-10	15-8	18-3
	Spruce-pine-fir #2	7-6	11-9	14-10	18-2	21-0	6-11	10-2	12-10	15-8	18-3
	Spruce-pine-fir #3	6-1	8-10	11-3	13-8	15-11	5-3	7-8	9-9	11-10	13-9

Check sources for availability of lumber in lengths greater than 20 feet.

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kPa.

- a. The tabulated rafter spans assume that ceiling joists are located at the bottom of the attic space or that some other method of resisting the outward push of the rafters on the bearing walls, such as rafter ties, is provided at that location. When ceiling joists or rafter ties are located higher in the attic space, the rafter spans shall be multiplied by the factors given below:

$H_C/H_R$	Rafter Span Adjustment Factor
1/3	0.67
1/4	0.76
1/5	0.83
1/6	0.90
1/7.5 or less	1.00

where:

$H_C$  = Height of ceiling joists or rafter ties measured vertically above the top of the rafter support walls.

$H_R$  = Height of roof ridge measured vertically above the top of the rafter support walls.

- b. Span exceeds 26 feet in length.

**TABLE R802.5.1(3)**  
**RAFTER SPANS FOR COMMON LUMBER SPECIES**  
 (Ground snow load=30 psf, ceiling not attached to rafters, L/Δ = 180)

RAFTER SPACING (inches)	SPECIES AND GRADE	DEAD LOAD = 10 psf					DEAD LOAD = 20 psf				
		2 x 4	2 x 6	2 x 8	2 x 10	2 x 12	2 x 4	2 x 6	2 x 8	2 x 10	2 x 12
		Maximum rafter spans <sup>a</sup>									
		(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)
12	Douglas fir-larch SS	10-0	15-9	20-9	Note b	Note b	10-0	15-9	20-1	24-6	Note b
	Douglas fir-larch #1	9-8	14-9	18-8	22-9	Note b	9-0	13-2	16-8	20-4	23-7
	Douglas fir-larch #2	9-5	13-9	17-5	21-4	24-8	8-5	12-4	15-7	19-1	22-1
	Douglas fir-larch #3	7-1	10-5	13-2	16-1	18-8	6-4	9-4	11-9	14-5	16-8
	Hem-fir SS	9-6	14-10	19-7	25-0	Note b	9-6	14-10	19-7	24-1	Note b
	Hem-fir #1	9-3	14-4	18-2	22-2	25-9	8-9	12-10	16-3	19-10	23-0
	Hem-fir #2	8-10	13-7	17-2	21-0	24-4	8-4	12-2	15-4	18-9	21-9
	Hem-fir #3	7-1	10-5	13-2	16-1	18-8	6-4	9-4	11-9	14-5	16-8
	Southern pine SS	9-10	15-6	20-5	Note b	Note b	9-10	15-6	20-5	25-4	Note b
	Southern pine #1	9-6	14-10	19-0	22-3	Note b	9-0	13-5	17-0	19-11	23-7
	Southern pine #2	8-7	12-11	16-4	19-5	22-10	7-8	11-7	14-8	17-4	20-5
	Southern pine #3	6-7	9-9	12-4	15-0	17-9	5-11	8-9	11-0	13-5	15-10
	Spruce-pine-fir SS	9-3	14-7	19-2	24-6	Note b	9-3	14-7	18-8	22-9	Note b
	Spruce-pine-fir #1	9-1	13-9	17-5	21-4	24-8	8-5	12-4	15-7	19-1	22-1
	Spruce-pine-fir #2	9-1	13-9	17-5	21-4	24-8	8-5	12-4	15-7	19-1	22-1
	Spruce-pine-fir #3	7-1	10-5	13-2	16-1	18-8	6-4	9-4	11-9	14-5	16-8
16	Douglas fir-larch SS	9-1	14-4	18-10	23-9	Note b	9-1	13-9	17-5	21-3	24-8
	Douglas fir-larch #1	8-9	12-9	16-2	19-9	22-10	7-10	11-5	14-5	17-8	20-5
	Douglas fir-larch #2	8-2	11-11	15-1	18-5	21-5	7-3	10-8	13-6	16-6	19-2
	Douglas fir-larch #3	6-2	9-0	11-5	13-11	16-2	5-6	8-1	10-3	12-6	14-6
	Hem-fir SS	8-7	13-6	17-10	22-9	Note b	8-7	13-6	17-1	20-10	24-2
	Hem-fir #1	8-5	12-5	15-9	19-3	22-3	7-7	11-1	14-1	17-2	19-11
	Hem-fir #2	8-0	11-9	14-11	18-2	21-1	7-2	10-6	13-4	16-3	18-10
	Hem-fir #3	6-2	9-0	11-5	13-11	16-2	5-6	8-1	10-3	12-6	14-6
	Southern pine SS	8-11	14-1	18-6	23-8	Note b	8-11	14-1	18-5	21-11	25-11
	Southern pine #1	8-7	13-0	16-6	19-3	22-10	7-10	11-7	14-9	17-3	20-5
	Southern pine #2	7-6	11-2	14-2	16-10	19-10	6-8	10-0	12-8	15-1	17-9
	Southern pine #3	5-9	8-6	10-8	13-0	15-4	5-2	7-7	9-7	11-7	13-9
	Spruce-pine-fir SS	8-5	13-3	17-5	22-1	25-7	8-5	12-9	16-2	19-9	22-10
	Spruce-pine-fir #1	8-2	11-11	15-1	18-5	21-5	7-3	10-8	13-6	16-6	19-2
	Spruce-pine-fir #2	8-2	11-11	15-1	18-5	21-5	7-3	10-8	13-6	16-6	19-2
	Spruce-pine-fir #3	6-2	9-0	11-5	13-11	16-2	5-6	8-1	10-3	12-6	14-6
19.2	Douglas fir-larch SS	8-7	13-6	17-9	21-8	25-2	8-7	12-6	15-10	19-5	22-6
	Douglas fir-larch #1	7-11	11-8	14-9	18-0	20-11	7-1	10-5	13-2	16-1	18-8
	Douglas fir-larch #2	7-5	10-11	13-9	16-10	19-6	6-8	9-9	12-4	15-1	17-6
	Douglas fir-larch #3	5-7	8-3	10-5	12-9	14-9	5-0	7-4	9-4	11-5	13-2
	Hem-fir SS	8-1	12-9	16-9	21-4	24-8	8-1	12-4	15-7	19-1	22-1
	Hem-fir #1	7-9	11-4	14-4	17-7	20-4	6-11	10-2	12-10	15-8	18-2
	Hem-fir #2	7-4	10-9	13-7	16-7	19-3	6-7	9-7	12-2	14-10	17-3
	Hem-fir #3	5-7	8-3	10-5	12-9	14-9	5-0	7-4	9-4	11-5	13-2
	Southern pine SS	8-5	13-3	17-5	22-3	Note b	8-5	13-3	16-10	20-0	23-7
	Southern pine #1	8-0	11-10	15-1	17-7	20-11	7-1	10-7	13-5	15-9	18-8
	Southern pine #2	6-10	10-2	12-11	15-4	18-1	6-1	9-2	11-7	13-9	16-2
	Southern pine #3	5-3	7-9	9-9	11-10	14-0	4-8	6-11	8-9	10-7	12-6
	Spruce-pine-fir SS	7-11	12-5	16-5	20-2	23-4	7-11	11-8	14-9	18-0	20-11
	Spruce-pine-fir #1	7-5	10-11	13-9	16-10	19-6	6-8	9-9	12-4	15-1	17-6
	Spruce-pine-fir #2	7-5	10-11	13-9	16-10	19-6	6-8	9-9	12-4	15-1	17-6
	Spruce-pine-fir #3	5-7	8-3	10-5	12-9	14-9	5-0	7-4	9-4	11-5	13-2

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**TABLE R802.5.1(3)—continued**  
**RAFTER SPANS FOR COMMON LUMBER SPECIES**  
 (Ground snow load=30 psf, ceiling not attached to rafters, L/Δ = 180)

RAFTER SPACING (inches)	SPECIES AND GRADE	DEAD LOAD = 10 psf					DEAD LOAD = 20 psf				
		2 x 4	2 x 6	2 x 8	2 x 10	2 x 12	2 x 4	2 x 6	2 x 8	2 x 10	2 x 12
		Maximum rafter spans <sup>a</sup>									
		(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)
24	Douglas fir-larch SS	7-11	12-6	15-10	19-5	22-6	7-8	11-3	14-2	17-4	20-1
	Douglas fir-larch #1	7-1	10-5	13-2	16-1	18-8	6-4	9-4	11-9	14-5	16-8
	Douglas fir-larch #2	6-8	9-9	12-4	15-1	17-6	5-11	8-8	11-0	13-6	15-7
	Douglas fir-larch #3	5-0	7-4	9-4	11-5	13-2	4-6	6-7	8-4	10-2	11-10
	Hem-fir SS	7-6	11-10	15-7	19-1	22-1	7-6	11-0	13-11	17-0	19-9
	Hem-fir #1	6-11	10-2	12-10	15-8	18-2	6-2	9-1	11-6	14-0	16-3
	Hem-fir #2	6-7	9-7	12-2	14-10	17-3	5-10	8-7	10-10	13-3	15-5
	Hem-fir #3	5-0	7-4	9-4	11-5	13-2	4-6	6-7	8-4	10-2	11-10
	Southern pine SS	7-10	12-3	16-2	20-0	23-7	7-10	11-10	15-0	17-11	21-2
	Southern pine #1	7-1	10-7	13-5	15-9	18-8	6-4	9-6	12-0	14-1	16-8
	Southern pine #2	6-1	9-2	11-7	13-9	16-2	5-5	8-2	10-4	12-3	14-6
	Southern pine #3	4-8	6-11	8-9	10-7	12-6	4-2	6-2	7-10	9-6	11-2
	Spruce-pine-fir SS	7-4	11-7	14-9	18-0	20-11	7-1	10-5	13-2	16-1	18-8
	Spruce-pine-fir #1	6-8	9-9	12-4	15-1	17-6	5-11	8-8	11-0	13-6	15-7
	Spruce-pine-fir #2	6-8	9-9	12-4	15-1	17-6	5-11	8-8	11-0	13-6	15-7
	Spruce-pine-fir #3	5-0	7-4	9-4	11-5	13-2	4-6	6-7	8-4	10-2	11-10

Check sources for availability of lumber in lengths greater than 20 feet.

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kPa.

- a. The tabulated rafter spans assume that ceiling joists are located at the bottom of the attic space or that some other method of resisting the outward push of the rafters on the bearing walls, such as rafter ties, is provided at that location. When ceiling joists or rafter ties are located higher in the attic space, the rafter spans shall be multiplied by the factors given below:

$H_C/H_R$	Rafter Span Adjustment Factor
1/3	0.67
1/4	0.76
1/5	0.83
1/6	0.90
1/7.5 or less	1.00

where:

$H_C$  = Height of ceiling joists or rafter ties measured vertically above the top of the rafter support walls.

$H_R$  = Height of roof ridge measured vertically above the top of the rafter support walls.

- b. Span exceeds 26 feet in length.

**TABLE R802.5.1(5)**  
**RAFTER SPANS FOR COMMON LUMBER SPECIES**  
 (Ground snow load=30 psf, ceiling attached to rafters, L/Δ = 240)

RAFTER SPACING (inches)	SPECIES AND GRADE	DEAD LOAD = 10 psf					DEAD LOAD = 20 psf				
		2 x 4	2 x 6	2 x 8	2 x 10	2 x 12	2 x 4	2 x 6	2 x 8	2 x 10	2 x 12
		Maximum rafter spans <sup>a</sup>									
		(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)
12	Douglas fir-larch SS	9-1	14-4	18-10	24-1	Note b	9-1	14-4	18-10	24-1	Note b
	Douglas fir-larch #1	8-9	13-9	18-2	22-9	Note b	8-9	13-2	16-8	20-4	23-7
	Douglas fir-larch #2	8-7	13-6	17-5	21-4	24-8	8-5	12-4	15-7	19-1	22-1
	Douglas fir-larch #3	7-1	10-5	13-2	16-1	18-8	6-4	9-4	11-9	14-5	16-8
	Hem-fir SS	8-7	13-6	17-10	22-9	Note b	8-7	13-6	17-10	22-9	Note b
	Hem-fir #1	8-5	13-3	17-5	22-2	25-9	8-5	12-10	16-3	19-10	23-0
	Hem-fir #2	8-0	12-7	16-7	21-0	24-4	8-0	12-2	15-4	18-9	21-9
	Hem-fir #3	7-1	10-5	13-2	16-1	18-8	6-4	9-4	11-9	14-5	16-8
	Southern pine SS	8-11	14-1	18-6	23-8	Note b	8-11	14-1	18-6	23-8	Note b
	Southern pine #1	8-7	13-6	17-10	22-3	Note b	8-7	13-5	17-0	19-11	23-7
	Southern pine #2	8-3	12-11	16-4	19-5	22-10	7-8	11-7	14-8	17-4	20-5
	Southern pine #3	6-7	9-9	12-4	15-0	17-9	5-11	8-9	11-0	13-5	15-10
	Spruce-pine-fir SS	8-5	13-3	17-5	22-3	Note b	8-5	13-3	17-5	22-3	Note b
	Spruce-pine-fir #1	8-3	12-11	17-0	21-4	24-8	8-3	12-4	15-7	19-1	22-1
	Spruce-pine-fir #2	8-3	12-11	17-0	21-4	24-8	8-3	12-4	15-7	19-1	22-1
Spruce-pine-fir #3	7-1	10-5	13-2	16-1	18-8	6-4	9-4	11-9	14-5	16-8	
16	Douglas fir-larch SS	8-3	13-0	17-2	21-10	Note b	8-3	13-0	17-2	21-3	24-8
	Douglas fir-larch #1	8-0	12-6	16-2	19-9	22-10	7-10	11-5	14-5	17-8	20-5
	Douglas fir-larch #2	7-10	11-11	15-1	18-5	21-5	7-3	10-8	13-6	16-6	19-2
	Douglas fir-larch #3	6-2	9-0	11-5	13-11	16-2	5-6	8-1	10-3	12-6	14-6
	Hem-fir SS	7-10	12-3	16-2	20-8	25-1	7-10	12-3	16-2	20-8	24-2
	Hem-fir #1	7-8	12-0	15-9	19-3	22-3	7-7	11-1	14-1	17-2	19-11
	Hem-fir #2	7-3	11-5	14-11	18-2	21-1	7-2	10-6	13-4	16-3	18-10
	Hem-fir #3	6-2	9-0	11-5	13-11	16-2	5-6	8-1	10-3	12-6	14-6
	Southern pine SS	8-1	12-9	16-10	21-6	Note b	8-1	12-9	16-10	21-6	25-11
	Southern pine #1	7-10	12-3	16-2	19-3	22-10	7-10	11-7	14-9	17-3	20-5
	Southern pine #2	7-6	11-2	14-2	16-10	19-10	6-8	10-0	12-8	15-1	17-9
	Southern pine #3	5-9	8-6	10-8	13-0	15-4	5-2	7-7	9-7	11-7	13-9
	Spruce-pine-fir SS	7-8	12-0	15-10	20-2	24-7	7-8	12-0	15-10	19-9	22-10
	Spruce-pine-fir #1	7-6	11-9	15-1	18-5	21-5	7-3	10-8	13-6	16-6	19-2
	Spruce-pine-fir #2	7-6	11-9	15-1	18-5	21-5	7-3	10-8	13-6	16-6	19-2
Spruce-pine-fir #3	6-2	9-0	11-5	13-11	16-2	5-6	8-1	10-3	12-6	14-6	
19.2	Douglas fir-larch SS	7-9	12-3	16-1	20-7	25-0	7-9	12-3	15-10	19-5	22-6
	Douglas fir-larch #1	7-6	11-8	14-9	18-0	20-11	7-1	10-5	13-2	16-1	18-8
	Douglas fir-larch #2	7-4	10-11	13-9	16-10	19-6	6-8	9-9	12-4	15-1	17-6
	Douglas fir-larch #3	5-7	8-3	10-5	12-9	14-9	5-0	7-4	9-4	11-5	13-2
	Hem-fir SS	7-4	11-7	15-3	19-5	23-7	7-4	11-7	15-3	19-1	22-1
	Hem-fir #1	7-2	11-4	14-4	17-7	20-4	6-11	10-2	12-10	15-8	18-2
	Hem-fir #2	6-10	10-9	13-7	16-7	19-3	6-7	9-7	12-2	14-10	17-3
	Hem-fir #3	5-7	8-3	10-5	12-9	14-9	5-0	7-4	9-4	11-5	13-2
	Southern pine SS	7-8	12-0	15-10	20-2	24-7	7-8	12-0	15-10	20-0	23-7
	Southern pine #1	7-4	11-7	15-1	17-7	20-11	7-1	10-7	13-5	15-9	18-8
	Southern pine #2	6-10	10-2	12-11	15-4	18-1	6-1	9-2	11-7	13-9	16-2
	Southern pine #3	5-3	7-9	9-9	11-10	14-0	4-8	6-11	8-9	10-7	12-6
	Spruce-pine-fir SS	7-2	11-4	14-11	19-0	23-1	7-2	11-4	14-9	18-0	20-11
	Spruce-pine-fir #1	7-0	10-11	13-9	16-10	19-6	6-8	9-9	12-4	15-1	17-6
	Spruce-pine-fir #2	7-0	10-11	13-9	16-10	19-6	6-8	9-9	12-4	15-1	17-6
Spruce-pine-fir #3	5-7	8-3	10-5	12-9	14-9	5-0	7-4	9-4	11-5	13-2	

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**TABLE R802.5.1(5)—continued**  
**RAFTER SPANS FOR COMMON LUMBER SPECIES**  
 (Ground snow load=30 psf, ceiling attached to rafters,  $L/\Delta = 240$ )

RAFTER SPACING (inches)	SPECIES AND GRADE	DEAD LOAD = 10 psf					DEAD LOAD = 20 psf				
		2 x 4	2 x 6	2 x 8	2 x 10	2 x 12	2 x 4	2 x 6	2 x 8	2 x 10	2 x 12
		Maximum rafter spans <sup>a</sup>									
		(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)	(feet - inches)
24	Douglas fir-larch SS	7-3	11-4	15-0	19-1	22-6	7-3	11-3	14-2	17-4	20-1
	Douglas fir-larch #1	7-0	10-5	13-2	16-1	18-8	6-4	9-4	11-9	14-5	16-8
	Douglas fir-larch #2	6-8	9-9	12-4	15-1	17-6	5-11	8-8	11-0	13-6	15-7
	Douglas fir-larch #3	5-0	7-4	9-4	11-5	13-2	4-6	6-7	8-4	10-2	11-10
	Hem-fir SS	6-10	10-9	14-2	18-0	21-11	6-10	10-9	13-11	17-0	19-9
	Hem-fir #1	6-8	10-2	12-10	15-8	18-2	6-2	9-1	11-6	14-0	16-3
	Hem-fir #2	6-4	9-7	12-2	14-10	17-3	5-10	8-7	10-10	13-3	15-5
	Hem-fir #3	5-0	7-4	9-4	11-5	13-2	4-6	6-7	8-4	10-2	11-10
	Southern pine SS	7-1	11-2	14-8	18-9	22-10	7-1	11-2	14-8	17-11	21-2
	Southern pine #1	6-10	10-7	13-5	15-9	18-8	6-4	9-6	12-0	14-1	16-8
	Southern pine #2	6-1	9-2	11-7	13-9	16-2	5-5	8-2	10-4	12-3	14-6
	Southern pine #3	4-8	6-11	8-9	10-7	12-6	4-2	6-2	7-10	9-6	11-2
	Spruce-pine-fir SS	6-8	10-6	13-10	17-8	20-11	6-8	10-5	13-2	16-1	18-8
	Spruce-pine-fir #1	6-6	9-9	12-4	15-1	17-6	5-11	8-8	11-0	13-6	15-7
	Spruce-pine-fir #2	6-6	9-9	12-4	15-1	17-6	5-11	8-8	11-0	13-6	15-7
	Spruce-pine-fir #3	5-0	7-4	9-4	11-5	13-2	4-6	6-7	8-4	10-2	11-10

Check sources for availability of lumber in lengths greater than 20 feet.

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kPa.

a. The tabulated rafter spans assume that ceiling joists are located at the bottom of the attic space or that some other method of resisting the outward push of the rafters on the bearing walls, such as rafter ties, is provided at that location. When ceiling joists or rafter ties are located higher in the attic space, the rafter spans shall be multiplied by the factors given below:

$H_C/H_R$	Rafter Span Adjustment Factor
1/3	0.67
1/4	0.76
1/5	0.83
1/6	0.90
1/7.5 or less	1.00

where:

$H_C$  = Height of ceiling joists or rafter ties measured vertically above the top of the rafter support walls.

$H_R$  = Height of roof ridge measured vertically above the top of the rafter support walls.

b. Span exceeds 26 feet in length.

20. The amendment of Section R602.6.1, entitled Drilling and notching of top plate., to read as follows:

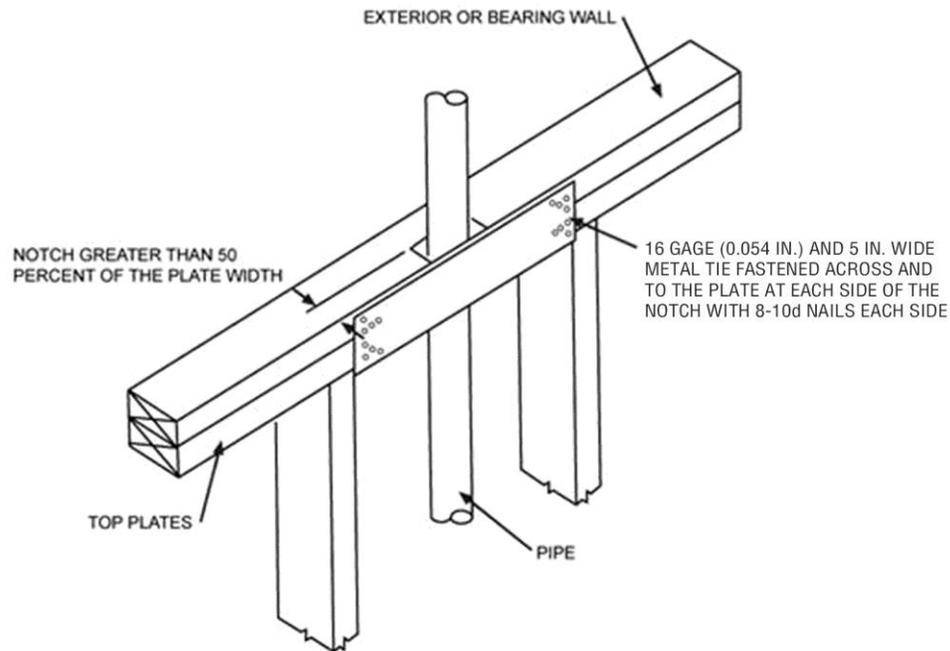
**R602.6.1 Drilling and notching of top plate.** When piping or ductwork is placed in or partly in an exterior wall or interior load-bearing wall, necessitating cutting, drilling or notching of the top plate by more than 50 percent of its width, a galvanized metal tie not less than 0.054 inch thick (1.37 mm) (16 Ga) and 5 inches (127 mm) wide shall be fastened across and to the plate at each side of the opening with not less than eight 10d (0.148 inch diameter) having a minimum length of 1 ½ inches (38 mm) at each side or equivalent. Fasteners will be offset to prevent splitting of the top plate material. The metal tie must extend a minimum of 6 inches past the opening. See figure R602.6.1.

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21. The amendment of Figure R602.6.1, entitled TOP PLATE FRAMING TO ACCOMMODATE PIPING, to appear as follows:

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For SI: 1 inch = 25.4 mm

FIGURE R602.6.1  
TOP PLATE FRAMING TO ACCOMMODATE PIPING

22. The amendment of Section R703.7.4.1, entitled Size and spacing., to add a second paragraph to read as follows:

For 2.67 square feet (0.248 m<sup>2</sup>) of wall area, the following dimensions shall be adhered to:

1. When ties are placed on studs 16" o.c., they shall be spaced no further apart than 24" vertically starting approximately 12" from the foundation.
2. When ties are placed on studs 24" o.c., they shall be spaced no further apart than 16" vertically starting approximately 8" from the foundation.

23. The amendment of Section R902.1, entitled Roofing covering materials., to read as follows:

**R902.1 Roofing covering materials.** Roofs shall be covered with materials as set forth in Sections R904 and R905. Class A, B or C roofing shall be installed. Classes A, B and C roofing required by this section to be listed shall be tested in accordance with UL 790 or ASTM E 108.

Exceptions:

1. Class A roof assemblies include those with coverings of brick, masonry and exposed concrete roof deck.
  2. Class A roof assemblies also include ferrous or copper shingles or sheets, metal sheets and shingles, clay or concrete roof tile, or slate installed on noncombustible decks.
  3. Non-classified roof coverings shall be permitted on one-story detached *accessory structures* used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 100 square feet.
24. The deletion of Sections R903.5, R903.5.1 and R903.5.2 in their entirety.
25. The deletion of Figure 903.5, entitled **HAIL EXPOSURE MAP.**
26. The amendment of Section R907.1, entitled General., to add a sentence to read as follows:
- All individual replacement shingles or shakes shall comply with Section R902.1.
27. The deletion of Section R907.3 paragraph #4.
28. The amendment of CHAPTER 11, entitled ENERGY EFFICIENCY to read as follows:

SECTION N1101  
GENERAL

N1101.1 Scope. This chapter regulates the energy efficiency for the design and construction of buildings regulated by this code.

Exception: Portions of the building envelope that do not enclose conditioned space.

N1101.2 Compliance. Compliance shall be demonstrated by meeting the requirements of the International Energy Conservation Code.

29. The amendment of Section M1305.1.3, entitled Appliances in attics., to read as follows:

**M1305.1.3 Appliances in attics.** Attics containing appliances requiring access shall be provided with an opening and a clear and unobstructed passageway large enough to allow removal of the largest appliance, but not less than 30 inches (762 mm) high and 22 inches (559 mm) wide and not more than 20 feet (6096 mm) in length when measured along the centerline of the passageway from the opening to the appliance. The passageway shall have continuous, unobstructed solid flooring not less than 24 inches (610 mm) wide. A level service space at least 30 inches (762 mm) deep and 30 inches (762 mm) wide shall be present along all sides of the appliance where access is required. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), or larger where such dimensions are not large enough to allow removal of the largest appliance. As a minimum, access to the attic space shall be provided by one of the following:

1. A permanent stair.
2. A pull down stair with a minimum 300 lb (136 kg) capacity.
3. An access door from an upper floor level.

Exceptions:

1. The passageway and level service space are not required where the appliance can be serviced and removed through the required opening.

2. Where the passageway is unobstructed and not less than 6 feet (1829 mm) high and 22 inches (559 mm) wide for its entire length, the passageway shall be not more than 50 feet (15 250 mm) long.
30. The amendment of Section M1305.1.3.1, entitled Electrical requirements., to add a sentence to read as follows:

Low voltage wiring of 50 Volts or less shall be installed in a manner to prevent physical damage.

31. The amendment of Section M1305.1.4.1, entitled Ground clearance., to read as follows:

**M1305.1.4.1 Ground clearance.** Appliances supported from the ground shall be level and firmly supported on a concrete slab or other approved material extending above the adjoining grade a minimum of 3 inches (76 mm). Appliances suspended from the floor shall have a clearance of not less than 6 inches (152 mm) above the ground.

32. The amendment of Section M1305.1.4.3, entitled Electrical requirements., to add a sentence to read as follows:

Low voltage wiring of 50 Volts or less shall be installed in a manner to prevent physical damage.

33. The amendment of Section M1307.3.1, entitled Protection from impact., by deleting it in its entirety.

34. The amendment of Section M1411.3, entitled Condensate disposal., to read as follows:

**M1411.3 Condensate disposal.** Condensate from all cooling coils and evaporators shall be conveyed from the drain pan outlet to a sanitary sewer through a trap, by means of a direct or indirect drain. Condensate shall not discharge in a publicly exposed area such as into a street, alley, sidewalk or other areas so as to cause a nuisance.

**Exceptions:**

1. Condensate may discharge directly to a roof drain that connects to an underground storm sewer system,

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2. Condensate may discharge directly onto roofs covered with membrane type roof coverings where the condensate will drain to a roof drain that connects to an underground storm sewer system,
  3. Condensate may discharge to a landscaped area containing flowers and other bedding plants other than turf. There must be five square feet of landscaped area for each ton of refrigeration, or
  4. Condensate may discharge to a French drain consisting of a pit excavated below grade that is not less than 24 inches (610 mm) in any dimension. The pit shall be filled with coarse gravel and the drainpipe shall extend into the pit and be securely anchored. A single drain shall not receive the condensate discharge of more than 10 tons nominal of combined cooling capacity. The pit shall be covered with sod after inspection. The French drain shall not be located so that it will receive direct discharge from a roof or downspout.
35. The amendment of Section M1502.4.1, entitled Material and size., to read as follows:
- M1502.4.1 Material and size.** Exhaust ducts shall have a smooth interior finish and shall be constructed of metal a minimum 0.016-inch (0.4mm) thick. The exhaust duct size shall be 4 inches (102 mm) nominal in diameter. The size of duct shall not be reduced along its developed length or at the point of termination.
36. The amendment of Section M1502.4.4.1, entitled Specified length., to read as follows:
- M1502.4.4.1 Specified length.** The maximum length of the exhaust duct shall be 35 feet (10668 mm) from the connection to the transition duct from the appliance to the outlet terminal. Where fittings are used, the maximum length of the exhaust duct shall be reduced in accordance with Table M1502.4.4.1.
37. The deletion of Section M1502.4.4.2, Manufacturer's instructions.
38. The deletion of Section M1502.4.5, Length identification.
39. The deletion of the exception to Section M1502.4.6, Exhaust duct required.

40. The amendment of Section M2005.2, entitled Prohibited locations., to read as follows:

**M2005.2 Prohibited locations.** Fuel-fired water heaters shall not be installed in a room used as a storage closet. Water heaters located in a bedroom or bathroom shall be installed in a sealed enclosure so that combustion air will not be taken from the living space. Access to such enclosure may be from the bedroom or bathroom when through a solid door, weather-stripped in accordance with the exterior door air leakage requirements of the *International Energy Conservation Code* and equipped with an approved self-closing device. Direct-vent water heaters are not required to be installed within an enclosure.

41. The amendment of Section G2412.5 (401.5), entitled Identification., to add a second paragraph to read as follows:

Both ends of each section of medium pressure corrugated stainless steel tubing (CSST) shall identify its operating gas pressure with an approved tag. The tags are to be composed of aluminum or stainless steel and the following wording shall be stamped into the tag:

“WARNING  
½ to 5 psi gas pressure  
Do Not Remove”

42. The amendment of Section G2413.3 (402.3), entitled Sizing., to add an exception to read as follows:

**EXCEPTION:** Corrugated stainless steel tubing (CSST) shall be a minimum of ½”.

43. The addition of Section G2415.5.1 (404.5.1), entitled Additional protection of CSST piping., to read as follows:

**G2415.5.1 (404.5.1) Additional protection of CSST piping.** Where Corrugated Stainless Steel Tubing (CSST) piping is installed in exterior wall cavities, insulated wall cavities and/or insulated roof/ceiling assemblies, the CSST piping must be protected for its entire length with flexible metal conduit (per the UL-1 Standard or its equivalent), Schedule 40 steel pipe, or approved strike plates. The additional protection must

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extend a minimum of 18 inches (457.2 mm) beyond where the CSST piping exits the wall cavities and/or the roof/ceiling assemblies.

44. The amendment of Section G2415.10 (404.10), entitled Minimum burial depth., to read as follows:

**G2415.10 (404.10) Minimum burial depth.** Underground piping systems shall be installed a minimum depth of 18 inches (458 mm) below grade.

45. The amendment of Section G2415.10.1 (404.10.1), entitled Individual outside appliances., by deleting it in its entirety.

46. The amendment of Section G2417.1 (406.1), entitled General., to read as follows:

**G2417.1 (406.1) General.** Prior to acceptance and initial operation, all piping installations shall be inspected and pressure tested to determine that the materials, design, fabrication, and installation practices comply with the requirements of this code. The permit holder shall make the applicable tests prescribed in Sections 2417.1.1 through 2417.7.5 to determine compliance with the provisions of this code. The permit holder shall give reasonable advance notice to the code official when the piping system is ready for testing. The equipment, material, power and labor necessary for the inspections and test shall be furnished by the permit holder and the permit holder shall be responsible for determining that the work will withstand the test pressure prescribed in the following tests.

47. The amendment of Section G2417.4 (406.4), entitled Test pressure measurements., to read as follows:

**G2417.4 (406.4) Test pressure measurement.** Test pressure shall be measured with a monometer or with a pressure-measuring device designed and calibrated to read, record, or indicate a pressure loss caused by leakage during the pressure test period. The source of pressure shall be isolated before the pressure tests are made. For tests requiring a pressure up to 5 psig, diaphragm gauges shall utilize a dial with a set hand, 1/10 pound incrementation and pressure range not to exceed 15 psi. For tests requiring a pressure over 5 psig and up to 10 psig, diaphragm gauges shall utilize a dial with a set hand, a minimum of 2/10 pound incrementation and a pressure range not to exceed 30 psi.

48. The amendment of Section G2417.4.2 (406.4.2), entitled Test duration., to read as follows:

**G2417.4.2 (406.4.2) Test duration.** Test duration shall be held for a length of time satisfactory to the Code Official, but in no case for less than ten (10) minutes.

49. The addition of Section G2420.1.4, entitled Valves in CSST installations., to read as follows:

**G2420.1.4 Valves in CSST installations.** Shutoff valves installed with corrugated stainless steel (CSST) piping systems shall be supported with an approved termination fitting, or equivalent support, suitable for the size of the valves, of adequate strength and quality, and located at intervals so as to prevent or damp out excessive vibration but in no case greater than 12-inches from the center of the valve. Supports shall be installed so as not to interfere with the free expansion and contraction of the system's piping, fittings, and valves between anchors. All valves and supports shall be designed and installed so they will not be disengaged by movement of the supporting piping.

50. The amendment of Section G2421.1 (410.1), entitled Pressure regulators., to add a second paragraph and an exception to read as follows:

Access to regulators shall comply with the requirements for access to appliances as specified in Section M1305.

**EXCEPTION:** A passageway or level service space is not required when the regulator is capable of being serviced and removed through the required attic opening.

51. The amendment of Section G2422.1.2.3 (411.1.3.3), entitled Prohibited locations and penetrations., is amended by deleting exception #4.

52. The amendment of Section G2439.5 (613.6), entitled Clothes dryer ducts., to add a sentence to read as follows:

The size of duct shall not be reduced along its developed length nor at the point of termination.

53. The deletion of Section G2439.5.5.2 (614.6.5.2), entitled Manufacturer's instructions., in its entirety.

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54. The deletion of Section G2439.5.6 (614.6.5), entitled Length identification., in its entirety.
55. The deletion of the exception to G2439.5.7 (614.6.6), entitled Exhaust duct required.
56. The amendment of Section P2503.8.2, entitled Testing., to read as follows:

**P2503.8.2 Testing.** Reduced pressure principle backflow preventers, double check valve assemblies, double-detector check valve assemblies and pressure vacuum breaker assemblies shall be tested at the time of installation, immediately after repairs or relocation at regular intervals as required by applicable state or local provisions.
57. The addition of Section P2603.6.1, entitled Sewer depth., to read as follows:

**P2603.6.1 Sewer depth.** Building sewers shall be a minimum of 12 inches (304 mm) below grade.
- 57.1 The amendment of Section P2608.5, entitled Water supply systems., to read as follows:

**P2608.5 Water supply systems.** Water service pipes, water distribution pipes and the necessary connecting pipes, fittings, control valves, faucets and all appurtenances used to dispense water intended for human ingestion shall be evaluated and listed as conforming to the requirements of NSF 61 and NSF 372.
- 57.2 The amendment of Section P2722.1, entitled General., to read as follows:

**P2722.1 General.** Fixture supply valves and faucets shall comply with ASME A112.18.1/CSA B125.1 as listed in Table P2701.1. Faucets and fixture fittings that supply drinking water for human ingestion shall conform to the requirements of NSF 61, Section 9 and NSF 372. Flexible water connectors shall conform to the requirements of Section P2905.7. (Amend Ord 13-055, 12/3/13)
58. The amendment of Section P2801.6, entitled Water heaters installed in garages., to add an exception to read as follows:

**EXCEPTION:** Elevation of the ignition source is not required for water heaters that are listed as flammable vapor resistant and for installation without elevation.

59. The amendment of Section P2803.6.1, entitled Requirements for discharge pipe., by adding item #14 to read as follows:

14. When discharging outside the building, the point of discharge shall be with the end of the pipe not more than two (2) feet (610 mm) nor less than six (6) inches (152 mm) above the ground.

60. The amendment of Section P2902.5.3, entitled Lawn irrigation systems, to read as follows:

**P2902.5.3 Lawn irrigation systems.** The potable water supply system to lawn irrigation systems shall be protected as provided for in the Irrigation Chapter.

- 60.1 The amendment of Section P2903.9.4, entitled Valve requirements, to read as follows:

**P2903.9.4 Valve requirements.** Valves shall be of an *approved* type and compatible with the type of piping material installed in the system. Ball valves, gate valves, globe valves and plug valves intended to supply drinking water shall meet the requirements of NSF 61 and NSF 372.

- 60.2 The amendment of Section P2905.2, entitled Lead content, to read as follows:

**P2905.2 Lead content.** Pipe and fittings used in the water-supply system shall have a maximum of less than 0.25% lead in accordance with NSF 372.

- 60.3 The amendment of Section P2905.4, entitled Water service pipe., to read as follows:

**P2905.4 Water service pipe.** Water service pipe shall conform to NSF 61 and NSF 372 and shall conform to one of the standards listed in Table P2905.4. Water service pipe or tubing, installed underground and outside the structure, shall have a minimum working pressure rating of 160 pounds per square inch at 73°F (1103kPa at 23°C). Where the water pressure exceeds 160 pounds per square inch (1103kPa), piping material shall have a rated working pressure equal to or greater than the highest

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available pressure. Water service piping materials not-third party certified for water distribution shall terminate at or before the full open valve located at the entrance to the structure. Ductile iron water service pipe shall be cement mortar lined in accordance with AWWA C104.

- 60.4 The amendment of Section P2905.5, entitled Water-distribution pipe., to read as follows:

**P2905.5 Water-distribution pipe.** Water-distribution pipe within *dwelling units* shall conform to NSF 61 and NSF 372 and shall conform to one of the standards listed in Table P2905.5. All hot-water distribution pipe and tubing shall have a minimum pressure rating of 100 psi at 180°F (689 kPa at 82°C).

- 60.5 The amendment of Section P2905.6, entitled Fittings., to read as follows:

**P2905.6 Fittings.** Pipe fittings shall be *approved* for installation with the piping material installed and shall comply with the applicable standards listed in Table P2905.6. All pipe fittings used in water supply systems shall also comply with NSF 61 and NSF 372.

- 60.6 The amendment of Section P2908.3, entitled Connection tubing., to read as follows:

**P2908.3 Connection tubing.** The tubing to and from drinking water treatment units shall be of a size and material recommended by the manufacturer. The tubing shall comply with NSF 14, NSF 42, NSF 44, NSF 53, NSF 58; or NSF 61 and NSF 372. (Amend Ord 13-055, 12/3/13)

61. The amendment of Section P3005.2.6, entitled Base of Stacks., to read as follows:

**P3005.2.6 Upper Terminal.** Each horizontal drain shall be provided with a cleanout at its upper terminal.

Exception: Cleanouts may be omitted on a horizontal drain less than five (5) feet (1524 mm) in length unless such line is serving sinks or urinals.

62. The deletion of Section P3111, COMBINATION WASTE AND VENT SYSTEM in its entirety.

63. The amendment of Section P3112.2, entitled Vent connection., including the title, to read as follows:

**P3112.2 Installation.** Traps for island sinks and similar equipment shall be roughed in above the floor and may be vented by extending the vent as high as possible, but not less than the drainboard height and then returning it downward and connecting it to the horizontal sink drain immediately downstream from the vertical fixture drain. The return vent shall be connected to the horizontal drain through a wye-branch fitting and shall, in addition, be provided with a foot vent taken off the vertical fixture vent by means of a wye-branch immediately below the floor and extending to the nearest partition and then through the roof to the open air or may be connected to other vents at a point not less than six (6) inches (152 mm) above the flood level rim of the fixtures served. Drainage fittings shall be used on all parts of the vent below the floor level and a minimum slope of one-quarter (1/4) inch per foot (20.9 mm/m) back to the drain shall be maintained. The return bend used under the drainboard shall be a one (1) piece fitting or an assembly of a forty-five (45) degree (0.79 radius), a ninety (90) degree (1.6 radius) and a forty-five (45) degree (0.79 radius) elbow in the order named. Pipe sizing shall be as elsewhere required in this Code. The island sink drain, upstream of the return vent, shall serve no other fixtures. An accessible cleanout shall be installed in the vertical portion of the foot vent.

64. The deletion of Section P3112.3, entitled Vent installation below the fixture flood level rim., in its entirety.

- 64.1 The amendment of Chapter 44, entitled Referenced Standards, by the amendment of the ASTM Standard Reference Number B 32-04 to read as follows:

B 32-08 Specifications for Solder Metal...P3003.10.3, P3003.11.3

- 64.2 The amendment of Chapter 44, entitled Referenced Standards, by the amendment of the ASTM Standard Reference Number B 88-03 to read as follows:

B 88-03 Specifications for Seamless Copper  
Water Tube.....G2414.5.2, Table M2101.1,  
Table P3002.1(1), Table P3002.1(2),  
Table P3002.2

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64.3 The amendment of Chapter 44, entitled Referenced Standards, by the addition of the ASTM Standard Reference Number B 88-09 to read as follows:

B 88-09 Specifications for Seamless Copper  
Water Tube.....Table P2905.4, Table P2905.5

64.4 The amendment of Chapter 44, entitled Referenced Standards, by the amendment of the ASTM Standard Reference Number B 813-00e01 to read as follows:

B 813-00e01 Specifications for Liquid and Paste  
Fluxes for Soldering of Copper and  
Copper Alloy Tube.....Table M2101.1, P3003.5.1,  
P3003.10.3, P3003.11.3

64.5 The amendment of Chapter 44, entitled Referenced Standards, by the addition of the ASTM Standard Reference Number B 813-10 to read as follows:

B 813-10 Specifications for Liquid and Paste  
Fluxes for Soldering of Copper and  
Copper Alloy Tube.....P2904.14

64.6 The amendment of Chapter 44, entitled Referenced Standards, by the amendment of the NSF Standard Reference Number 61-2007a to read as follows:

61-2011 Drinking Water System Components-  
Health Effects.....P2608.5, P2722.1, P2903.9.4,  
P2905.4, P2905.5, P2905.6, P2908.3

64.7 The amendment of Chapter 44, entitled Referenced Standards, by the addition of the following NSF Standard Reference Number to read as follows:

372-2011 Drinking Water System Components-  
Lead Content.....P2608.5, P2722.1, P2903.9.4,  
P2905.4, P2905.5, P2905.6, P2908.3

(Amend Ord 13-055, 12/3/13)

65. The amendment of Appendix G, entitled SWIMMING POOLS, SPAS AND HOT TUBS, to read as follows:

**APPENDIX G  
SWIMMING POOLS, SPAS AND HOT TUBS**

**SECTION AG 101  
GENERAL**

**AG 101.1 General.** The provisions of this appendix shall control the design and construction of swimming pools, spas and hot tubs installed in or on the lot of a one- and two-family dwelling.

**SECTION AG 102  
PERMITS AND INSPECTIONS**

**AG 102.1 Permit Required.** A permit shall be required to construct and/or erect a swimming pool. A permit may only be issued to a registrant as set out in Article IV of the Construction Chapter.

**AG 102.2 Submittal required.** An application for a permit to construct and/or erect a swimming pool shall be accompanied by the following:

1. Two (2) site plans indicating the location of the proposed swimming pool and the associated swimming pool decks on the lot that have been stamped by the electrical service provider,
2. Lot grading plans, including surface drain inlets and discharges, for both before and after construction,
3. The plans for pool barrier compliance, and
4. Any additional information that may be required by the Building Official.

**AG 102.3 Inspection required.** After an application for a permit to construct and/or erect a swimming pool has been issued in accordance with Article IV of the Construction Chapter, the following inspections are required as a minimum as applicable:

1. Belly steel inspection,
2. Electrical bonding inspection,
- 2.1. Pool entrapment protection system,
3. Underground electrical inspection,
4. Underground plumbing and gas piping inspection, and

5. Final inspection to include verification of swimming pool barrier compliance (prior to plastering the swimming pool).

**AG 102.4 Lot grading and surface drainage.** The construction and/or erection of a swimming pool may not alter the lot grading or drainage patterns intended by the lot's approved grading plan and/or the subdivision's approved grading and drainage plans. The point of discharge of collected surface drains and rain gutters may not exit onto adjacent properties as a concentrated point of discharge.

**AG 102.5** It shall be unlawful for the registrant to permit or cause the swimming pool to be filled with water before the existence of a lawful swimming pool barrier is inspected and approved.

### **SECTION AG 103 DEFINITIONS**

**AG 103.1 General.** For the purposes of these requirements, the terms used shall be defined as follows and as set forth in Chapter 2.

**ABOVE-GROUND/ON-GROUND POOL.** See "Swimming pool."

**BARRIER.** A fence, wall, building wall or combination thereof which completely surrounds the swimming pool and obstructs access to the swimming pool.

**HOT TUB.** See "Swimming pool."

**IN-GROUND POOL.** See "Swimming pool."

**POOL DECK.** A flat walking surface consisting of wood, stone, brick, concrete or other similar material located within 5 feet (1524 mm) of the water's edge of a swimming pool.

**RESIDENTIAL.** That which is situated on the premises of a detached one- or two-family dwelling or a one-family townhouse not more than three stories in height.

**SELF-CLOSING GATE.** A gate which closes or shuts automatically without the aid of human, electrical, solar or battery power after being opened.

**SELF-CLOSING AND SELF-LATCHING DEVICE.** A device that causes a gate to automatically close and latch without human, electrical, solar or battery power.

**SPA, NONPORTABLE.** See “Swimming pool.”

**SPA, PORTABLE.** A nonpermanent structure intended for recreational bathing, in which all controls, water-heating and water-circulating equipment are an integral part of the product.

**SWIMMING POOL.** Any structure intended for swimming or recreational bathing that contains water over 24 inches (610 mm) deep. This includes in-ground, above-ground and on-ground swimming pools, hot tubs and spas.

**SWIMMING POOL, INDOOR.** A swimming pool which is totally contained within a structure and surrounded on all four sides by walls of said structure.

**SWIMMING POOL, OUTDOOR.** Any swimming pool which is not an indoor pool.

#### **SECTION AG 104 SWIMMING POOLS**

**AG 104.1** In-ground pools. In-ground pools shall be designed and constructed in conformance with ANSI/NSPI-5 as listed in Section AG108.

**AG 104.2** Above-ground and on-ground pools. Above-ground and on-ground pools shall be designed and constructed in conformance with ANSI/NSPI-4 as listed in Section AG108.

#### **SECTION AG 105 SPAS AND HOT TUBS**

**AG 105.1** Permanently installed spas and hot tubs. Permanently installed spas and hot tubs shall be designed and constructed in conformance with ANSI/NSPI-3 as listed in Section AG 108.

**AG 105.2** Portable spas and hot tubs. Portable spas and hot tubs shall be designed and constructed in conformance with ANSI/NSPI-6 as listed in Section AG108.

**SECTION AG 106  
BARRIER REQUIREMENTS**

**AG 106.1** Application. The provisions of this chapter shall control the design of barriers for residential swimming pools, spas and hot tubs. These design controls are intended to provide protection against potential drownings and near-drownings by restricting access to swimming pools, spas and hot tubs.

**AG 106.2** Outdoor swimming pool. An outdoor swimming pool, including an in-ground, above-ground or on-ground pool, hot tub or spa shall be provided with a barrier which shall comply with the following:

1. The top of the barrier shall be at least 48 inches (1219 mm) above grade measured on the side of the barrier which faces away from the swimming pool. The maximum vertical clearance between grade and the bottom of the barrier shall be 2 inches (51 mm) measured on the side of the barrier which faces away from the swimming pool. Where the top of the pool structure is above grade, such as an above-ground pool, the barrier may be at ground level, such as the pool structure, or mounted on top of the pool structure. Where the barrier is mounted on top of the pool structure, the maximum vertical clearance between the top of the pool structure and the bottom of the barrier shall be 4 inches (102 mm).
2. Openings in the barrier shall not allow passage of a 4-inch-diameter (102 mm) sphere.
3. Solid barriers which do not have openings, such as a masonry or stone wall, shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.
4. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45 inches (1143 mm), the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall not exceed 1.75 inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) in width.

- EXCEPTION:** When the horizontal members are part of a fence that is at least 6 feet (1829 mm) in height, the horizontal members need not be on the pool side of the barrier.
5. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches (1143 mm) or more, spacing between vertical members shall not exceed 4 inches (102 mm). Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) in width.
  6. Maximum mesh size for chain link fences shall be a 1.25-inch (32 mm) square unless the fence is provided with slats fastened at the top or the bottom which reduce the openings to not more than 1.75 inches (44 mm).
  7. Where the barrier is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members shall not be more than 1.75 inches (44 mm).
  8. Access gates shall comply with the requirements of Section AG 106.2, Items 1 through 7, and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool and shall be self-closing and have a self-latching device. Gates other than pedestrian access gates shall have a self-latching device. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from the bottom of the gate, the release mechanism and openings shall comply with the following:
    - 8.1. The release mechanism shall be located on the pool side of the gate at least 3 inches (76 mm) below the top of the gate, and
    - 8.2. The gate and barrier shall have no opening greater than 0.5 inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.
    - 8.3. Driveway access gates across a paved or improved surface intended for regular vehicle access shall not be located in a swimming pool barrier.
  9. Where a wall of a dwelling serves as part of the barrier one of the following conditions shall be met:
    - 9.1. All doors with direct access to the pool through that wall shall be equipped with an alarm which produces an audible warning when the door and its screen, if present, are opened. The alarm shall sound continuously for a minimum of 30 seconds immediately after the door is opened and be capable of being heard throughout the house

during normal household activities. The alarm shall automatically reset under all conditions. The alarm system shall be equipped with a manual means, such as touchpad or switch, to temporarily deactivate the alarm for a single opening. Such deactivation shall last for not more than 15 seconds. The deactivation switch(es) shall be located at least 54 inches (1372 mm) above the threshold of the door; or

- 9.2. Other means of protection, such as self-closing doors with self-latching devices, which are approved by the governing body, shall be acceptable so long as the degree of protection afforded is not less than the protection afforded by Item 9.1 described above.
10. Where an above-ground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure and the means of access is a ladder or steps, then:
  - 10.1. The ladder or steps shall be capable of being secured, locked or removed to prevent access, or
  - 10.2. The ladder or steps shall be surrounded by a barrier which meets the requirements of Section AG 106.2, Items 1 through 9. When the ladder or steps are secured, locked or removed, any opening created shall not allow the passage of a 4-inch-diameter (102 mm) sphere.

**AG 106.3** Indoor swimming pool. All walls surrounding an indoor swimming pool shall comply with Section AG 106.2, Item 9.

**AG 106.4** Prohibited locations. Barriers shall be located so as to prohibit permanent structures, equipment or similar objects from being used to climb the barriers.

**AG 106.5** Barrier exceptions. Spas or hot tubs with a safety cover which complies with ASTM F 1346, as listed in Section AG 108, shall be exempt from the provisions of this appendix.

### **SECTION AG 107 ENTRAPMENT PROTECTION FOR SWIMMING POOL AND SPA SUCTION OUTLETS**

**AG 107.1. General.** Suction outlets shall be designed and installed in accordance with ANSI/APSP-7.

**SECTION AG 108  
ABBREVIATIONS**

**AG 108.1** General.

ANSI-American National Standards Institute, 11 West 42nd Street, New York, NY 10036

ASTM-American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103

NSPI-National Spa and Pool Institute, 2111 Eisenhower Avenue, Alexandria, VA 22314

**SECTION AG 109  
STANDARDS**

**AG 109.1** General.

**ANSI/NSPI**

ANSI/NSPI-3  
Standard for Permanently Installed Residential Spas .....AG 105.1

ANSI/NSPI-4 Standard for Above-ground/On-ground Residential  
Swimming Pools. ....AG 104.2

ANSI/NSPI-5  
Standard for Residential In-ground Swimming Pools. ....AG 104.1

ANSI/NSPI-6 Standard for Residential Portable Spas. ....AG 105.2

ASME/ANSI  
112.19.8-2007 Suction Fittings for Use in Swimming Pools, Wading  
Pools, Spas, Hot Tubs and Whirlpool Bathing Appliances .....AG 107.1

ANSI/APSP-7-06  
Standard for Suction Entrapment Avoidance in Swimming Pools, Wading  
Pools, Spas, Hot Tubs and Catch Basins .....AG 107.1

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**ASTM**

ASTM F 1346-91 Standard Performance Specifications for Safety Covers and Labeling Requirements for All Covers for Swimming Pools, Spas and Hot Tubs. .... AG 105.2, AG 105.5

(Amend Ord 12-020, 4/24/12)

E. The amendment of the following I.E.C.C. provisions:

1. The amendment of Section 101.1, entitled Title., to read as follows:

**101.1 Title.** This code shall be known as the International Energy Conservation Code of the City of Arlington, Texas, and shall be cited as such. It is referred to herein as “this code.”

2. The amendment of Section 101.4.2, Historic buildings., to read as follows:

**101.4.2 Historic buildings.** Any building or structure that is listed in the State of National Register of Historic Places; designated as a historic property under local or state designation law or survey; certified as a contributing resource with a National Register listed or locally designated historic district; or with an opinion or certification that the property is eligible to be listed on the National or State Registers of Historic places either individually or as a contributing building to a historic district by the State Historic Preservation Officer or the Keeper of the National Register of Historic Places, shall comply with all of the provisions of this code.

**Exception:** Whenever a provision or provisions shall invalidate or jeopardize the historical designation or listing, that provision or provisions may be exempted.

3. The addition of Section 102.1.2, entitled Alternative compliance., to read as follows:

**Alternative compliance.** A building certified by a national, state, or local accredited energy efficiency program and determined by the Energy Systems Laboratory to be in compliance with the energy efficiency requirements of this section may, at the option of the Code Official, be considered in compliance. The United States Environmental Protection Agency's Energy Star Program certification of energy code equivalency shall be considered in compliance.

ARTICLE I - 102

(Amend Ord 12-020, 4/24/12)

4. The amendment of Section 202, GENERAL DEFINITIONS, by the addition of the following definition:

**GLAZING AREA.** Total area of the glazed fenestration measured using the rough opening and including sash, curbing or other framing elements that enclose conditioned space. Glazing area includes the area of glazed fenestration assemblies in walls bounding conditioned basements. For doors where the daylight opening area is less than 50 percent of the door area, the glazing area is the daylight opening area. For all other doors, the glazing area is the rough opening area for the door including the door and the frame.

5. The amendment of Section 301, entitled CLIMATE ZONES, to read as follows:

SECTION 301  
CLIMATE ZONES

**301.1 General.** The City of Arlington, Texas is designated as Climate Zone 3 – A (Moist)/Warm and humid.

6. The amendment of Section 401.2, entitled Compliance., to read as follows:

**401.2 Compliance.** Projects shall comply with Sections 401, 402.4, 402.5, and 403.1, 403.2.2, 403.2.3, and 403.3 through 403.9 (referred to as the mandatory provisions) and either:

1. Sections 402.1 through 402.3, 403.2.1 and 404.1 (prescriptive) and the use of Tables 402.1.1 and 402.1.3 are limited to a maximum *glazing area* of 15% window area to floor area ratio; or
2. Section 405 (performance).

7. The addition of Section 401.2.1, entitled Compliance software tool., to read as follows:

**401.2.1. Compliance software tools.** Software tools used to demonstrate energy code compliance that are deemed acceptable by the building official. The PNL program REScheck™ is not acceptable for residential compliance.

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**Exception:** The PNL program REScheck™, UA Alternate compliance approach method may be used when the compliance certificate demonstrates that the maximum glazing area does not exceed 15% of the conditioned floor area.

8. The amendment of Table 402.1.1, entitled INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT, by adding footnotes l and m to read as follows:

- l. Any glazing facing within 45 degrees of true north is exempt from the minimum SHGC requirement.

- m. Any glazing facing within 45 degrees of true south which is shaded along its full width by a permanent overhang with a projection factor of 0.3 or greater is exempt from the minimum SHGC requirement.

9. The amendment of Section 402.1.4, entitled Total UA alternative., to read as follows:

**402.1.4 Total UA alternative.** If the total building thermal envelope UA (sum of U -factor times assembly area) is less than or equal to the total UA resulting from using the U -factors in Table 402.1.3 (multiplied by the same assembly area as in the proposed building), the building shall be considered in compliance with Table 402.1.1. The UA calculation shall be done using a method consistent with the ASHRAE Handbook of Fundamentals and shall include the thermal bridging effects of framing materials. The SHGC requirements shall be met in addition to UA compliance. The use of Table 402.1.3 is limited to a maximum glazing area or 15% window area to floor area ratio.

10. The addition of Section 402.2.12, entitled Insulation installed in walls., to read as follow:

**402.2.12. Insulation installed in walls.** Insulation batts installed in walls shall be totally surrounded by an enclosure on all sides consisting of framing lumber, gypsum, sheathing, wood structural panel sheathing or other equivalent material approved by the building official.

11. The amendment of Section 402.4.2.1, Testing option., to read as follows:

**402.4.2.1 Testing option.** Building envelope tightness and insulation installation shall be considered acceptable when tested air leakage is less than seven air changes per hour (ACH) when tested with a blower door at a pressure of 33.5 psf (50 Pa). Testing shall occur after rough in and after installation of penetrations of the building envelope, including penetrations for utilities, plumbing, electrical, ventilation and combustion appliances.

During testing:

1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed;
2. Dampers shall be closed, but not sealed, including exhaust, intake, makeup air, backdraft and flue dampers;
3. Interior doors shall be open;
4. Exterior openings for continuous ventilation systems and heat recovery ventilators shall be closed and sealed;
5. Heating and cooling system(s) shall be turned off;
6. HVAC ducts shall not be sealed; and
7. Supply and return registers shall not be sealed.

Testing may only be performed by individuals that are certified HERS Raters or Rating Field Inspectors by RESNET or Performance Verification Technicians, or other certifications as may be approved by the building official. The certified individuals must be an independent third-party entity, and may not be employed; or have any financial interest in the company that constructs the structure.

12. The amendment of Section 403.2.2, Sealing (Mandatory)., to add paragraph #3 to read as follows:
  3. Testing may only be performed by individuals that are certified HERS Raters or Rating Field Inspectors by RESNET or Performance Verification Technicians, or other certifications as may be approved by the building official. The certified individuals must be an independent third-party entity, and may not be employed; or have any financial interest in the company that installed the duct system.

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13. The amendment of Section 405.4.1, entitled Compliance software tools., to read as follows:

**405.4.1 Compliance software tools.** Documentation verifying that the methods and accuracy of the compliance software tools conform to the provisions of this section shall be provided to the code official.

*RemRate<sup>TM</sup>*, *Energy Gauge<sup>TMv</sup>* (when used in conjunction with the United States Environmental Protection Agency's Energy Star Program certification of energy code equivalency), and the *International Code Calculator (IC3)* are deemed acceptable performance simulation programs.

14. The addition of Section 502.2.8, entitled Insulation installed in walls., to read as follows:

**502.2.8. Insulation installed in walls.** Insulation batts installed in walls shall be totally surrounded by an enclosure on all sides consisting of framing lumber, gypsum, sheathing, wood structural panel sheathing or other equivalent material approved by the building official.

15. The amendment of Table 505.6.2(1), entitled EXTERIOR LIGHTING ZONES, to read as follows:

TABLE 505.6.2(1)  
EXTERIOR LIGHTING ZONES <sup>1, 2</sup>

LIGHTING ZONE	DESCRIPTION
1	A-Agricultural and E-Estate Districts and park areas
2	Residential and multifamily zoning districts, O-Office, NS-Neighborhood Services, CS-Community Services, light industrial with limited nighttime use and residential mixed use areas
3	B-Business LI-Light Industrial IM-Industrial Manufacturing
4	Non-Residential zoning districts in the ED-Entertainment District Overlay

<sup>1</sup> The lighting zone references the zoning district classification as set forth in the Zoning Ordinance.

<sup>2</sup> The lighting zone for mixed use districts may be determined by the building official on a case by case basis.

(Amend Ord 12-020, 4/24/12)

### **Section 1.05 Adoption of Appendices**

The following referenced provisions of the I.B.C., I.R.C. and I.E.C.C. annexed hereto as appendices, the same being either attached hereto or incorporated herein by reference, are made a part of this Building Code.

Appendix A. Only Appendix C, entitled GROUP U-AGRICULTURAL BUILDINGS; of the Appendix to the International Building Code, 2009 Edition.

All other Chapters of said Appendix to the I.B.C. are hereby omitted from this Building Code.

Appendix B. Only Appendix G, entitled SWIMMING POOLS, SPAS AND HOT TUBS, as amended, of the Appendix to the International Residential Code, 2009 Edition.

All other Chapters of said Appendix to the I.R.C. are hereby omitted from this Building Code.

(Amend Ord 12-020, 4/24/12)

### **Section 1.06 Construction Prohibited in Easements**

- A. Regardless of materials, manner of construction or unique characteristics of land, it shall be unlawful for any person, firm or corporation to cause or permit the installation, revision or relocation of any construction improvement where any part of such improvement is to be located in an easement, except as provided in this Section.
- B. In cases where improvements are proposed in any public easement the City has a right to use, application shall be made to the Building Official for the execution of an Easement Use Agreement. The Building Official shall refer the request to the City Engineer. If the improvement is approved, an easement use agreement

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allowing the encroachment will be provided upon payment of an administrative fee in the amount set by City Council resolution. Certain minor improvements are permitted without an Easement Use Agreement as provided in the Design Criteria Manual adopted by the City. In cases where improvements are proposed in any other easement, written permission of the owner of the dominant estate, or the beneficiary of the easement, is required prior to construction.

- C. The City of Arlington shall not be liable for damages or losses of any kind whatsoever by reason of injury to property or person occasioned by the use of any easement. The City shall have no obligations in regards to the maintenance of any improvements within such easement or rights-of-way. The City shall be defended at the cost and expense of the person placing improvements in any easements or rights-of-way from all claims and demands. The use of any easement in rights-of-way shall be discontinued and improvements removed within 30 days of notification by the City and the cost of the discontinuation and removal of improvements shall be borne by the owner of the improvement. The Building Official or the City Engineer may terminate and/or modify an Easement Use Agreement after review and concurrence of valid and justifiable reasons and/or conditions.
- D. The term “improvement” includes, but is not limited to, concrete or asphalt paving, swimming pools, fences, retaining walls, and temporary or permanent buildings. “Improvements” shall not include public or private mailboxes, or poles and boxes necessary for public utility services, or City-owned improvements on City property.

The term “easement” shall include easements for right-of-way, drainage and utilities.

(Amend Ord 09-024, 5/5/09)

### **Section 1.07 Requirements for Drainage**

- A. No person, firm, or corporation shall do, cause or permit to be done, the installation, modification, or relocation of any construction improvement where the improvement, when completed, will significantly impact other property. The other property may be either upstream or downstream from the property on which the improvement is to be made. The impact is primarily related to flooding of a building structure. The Building Official shall not issue a building permit where engineering data from a qualified professional engineer or the opinion of the Department of Engineering Services reveals that such improvement would significantly worsen any known drainage or flooding problem.

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(Amend Ord 09-024, 5/5/09)

- B. The term “improvement” means any of those things which require a building permit, such as buildings (either permanent or temporary), land development, concrete or asphalt paving, swimming pools, fences, retaining walls, earth fill, or excavation and landscaping. “Improvement” shall not include poles or boxes necessary for public utility service.
- C. Prior to obtaining a building permit, an acceptable site grading and drainage plan will be filed with the Building Inspections Department.

The purpose of the site grading plan is to ensure that all proposed structures are protected from a storm event having a 100-year recurrence interval. The plan shall assume a fully-developed watershed and shall account for all runoff that flows onto the site as well as runoff generated from the site.

See Design Criteria Manual for specific criteria regarding residential and commercial site grading plans.

#### **Section 1.08 Enforcement, Violations**

- A. It shall be unlawful for any person, firm or corporation to erect, construct, enlarge, alter, repair, move, improve, remove, convert, demolish, equip, use, occupy or maintain any building, structure or premises in the City of Arlington, or cause or permit the same to be done, contrary to or in violation of any of the provisions of this Building Code.
- B. In addition to the power of the Building Official under I.B.C., Section 104.6, entitled “Right of Entry,” to inspect a building pursuant to this Building Code, any peace officer may enter the public areas of any building or premises, or any areas specified in a proper inspection warrant, at all reasonable times wherever necessary in the performance of official duties to inspect and investigate for violations of any law, or to enforce any law, including violations of this Building Code. The peace officer shall first present proper credentials and request entry, unless otherwise permitted by law. If such entry is refused or, if no owner or other person having charge or control of the building or premises can be located, the peace officer shall have recourse to every remedy provided by law to secure entry.
- C. No owner, occupant or any other person having charge, care or control of any building or premises shall fail or neglect, after proper request is made pursuant to Subsection B above, to promptly permit entry therein by a peace officer in the performance of the peace officers duty. Any person violating this Subsection shall be guilty of a misdemeanor. (Amend Ord 10-009, 1/12/10)

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#### **Section 1.09 Skateboard Ramps**

- A. As used in this Section, the phrase “skateboard ramp” shall refer to a structure or piece of work artificially built up or composed of parts joined together in some definite manner, regardless of the materials used or the manner of construction, which is primarily used for, or designed and intended for primary use as, a ramp for skating or skateboarding activities.
- B. It shall be unlawful for any person to erect, construct, keep, maintain or use a skateboard ramp that is located:
- (1) at a distance closer than one hundred fifty feet (150') from any building located on another's property that is used or intended to be used for habitation, regardless of whether the habitation existed prior to the erection of said skateboard ramp; or
  - (2) at a distance closer than fifty feet (50') from the property line of the lot where said skateboard ramp is located.
- C. Should a habitation be placed on another's property closer than one hundred fifty feet (150') to an existing skateboard ramp, the owner of said skateboard ramp shall remove or relocate, or cause to be removed or relocated, said skateboard ramp within ninety (90) days of the completion of construction of the habitation.
- D. Failure to remove or relocate, or cause to be removed or relocated, a skateboard ramp as required by this Section shall constitute a misdemeanor. Each day that a skateboard ramp remains in violation of this Section shall constitute a separate offense.

#### **Section 1.10 Presumption**

Unless otherwise specified in this Chapter, the owner, occupant or person in control of any building or premises where any violation of this Building Code is found shall be prima facie responsible for such violation. (Amend Ord 02-020, 2/5/02)

#### **Section 1.11 Trash Receptacles**

All development for which a building permit is issued shall provide a trash receptacle capable of depositing, containing, and collecting refuse. The container shall be constructed or provided to prohibit trash from blowing or being displaced. Trash bins

may be of a commercial type designated by the City Collector. If constructed on site, the minimum dimensions shall be eight feet in both width and length by four feet in depth (8'x8'x4'). Enclosed construction trailers located on-site may satisfy this requirement. Permits and inspections may be withheld in situations where trash is not properly contained. (Amend Ord 02-024, 2/12/02)

### **Section 1.12 Hours of Construction**

Outdoor construction activities for projects supervised by building permits shall be prohibited, if located within three hundred (300') feet of property used for residential purposes, during the following times:

- (1) During the hours of 6:00 p.m. to 7:00 a.m. Central Standard Time.
- (2) During the hours of 8:00 p.m. to 7:00 a.m. Central Daylight Savings Time.

EXCEPTION: Homeowners performing work when acting as their own contractor.

The prohibition of outdoor construction activities may be appealed in writing to the building official. The building official may take into consideration the proximity of the proposed outdoor construction activities with adjacent residential uses and grant an exception to the prohibition. The building official may require the appellant to submit such information as needed to assist in the determination of residential adjacency. The building official must reply to the appellant within five (5) days of receipt of the appeal. Decisions of the building official may be appealed to the Building Code Board of Appeals as outlined in the Construction Ordinance. (Amend Ord 02-024, 2/12/02)

### **Section 1.13 Electronic Submittal of Final Plans**

Final plans or other documents required by the Building Code that will be archived must be submitted in an electronic format specified by the Director of Community Development and Planning ("CDP Director") as a condition to issuance of any type of permit, approval, or other action related to the final plans or documents. The City may provide an electronic conversion service for a fee in the amount set forth by City Council resolution. The CDP Director shall provide a schedule indicating which documents must be provided electronically, at which point during the approval process, and other information as necessary to implement an electronic archiving program. (Amend Ord 10-009, 1/12/10)

**ARTICLE II**

**BUILDING CODE BOARD OF APPEALS**

**Section 2.01 Appointment**

There is hereby established a Board to be called the Building Code Board of Appeals (hereinafter called "the Board"), which shall consist of nine (9) members who are residents of the City of Arlington. Such Board shall be composed of one (1) architect, one (1) general contractor or engineer, one (1) member with experience in the area of fire protection and fire safety, and the remaining members shall be selected at large from the building industry. The Mayor and each City Council member shall nominate a member with confirmation by majority vote of the City Council in accordance with the City of Arlington Boards and Commissions Policy Statement. (Amend Ord 04-042, 5/11/04)

**Section 2.02 Term of Office**

Place numbers shall be assigned to each member of the Board. The term of office for Board members shall be for two (2) years. Vacancies shall be filled for an unexpired term in the same manner as the original appointments. Continued absence of any member from regular meetings of the Board shall, at the discretion of the City Council, render any such member liable to immediate removal from office. Members shall serve at the will and pleasure of the City Council. (Amend Ord 04-042, 5/11/04)

**Section 2.03 Quorum**

Five (5) members of the Board shall constitute a quorum for the transaction of business. A simple majority of members present shall be required to vary the application of any provision of this Building Code or to modify any order of the Building Official. (Amend Ord 04-042, 5/11/04)

**Section 2.04    Records**

The Building Official shall act as Secretary of the Building Code Board of Appeals and shall make a detailed record of all its proceedings, which record shall set forth the names of the members and/or alternate member present, the reasons for the Board's decisions, the vote of each member participating therein, and any failure of a member to vote.

**Section 2.05    Procedure**

The Chairman shall be appointed in accordance with the Administration Chapter of the City Code. The Board shall select a vice-chairman and shall further establish rules and regulations for its own procedures not inconsistent with the provisions of this Building Code. The Board shall meet at regular intervals to be determined by the Chairman, and the Board shall meet within thirty (30) days after notice of any appeal has been received. (Amend Ord 96-93, 7/2/96)

**Section 2.06    Appeals; Time Limit**

- A. The owner of premises who seeks to erect or alter a building or structure on said premises, or an authorized agent, may appeal from a decision of the Building Official to the Board if:
- (1) The Building Official shall reject or refuse to approve the mode or manner of construction proposed to be followed, or the materials proposed to be used, in the erection or alteration of said building or structure; or
  - (2) Said owner claims that the provisions of this Building Code do not apply to the proposed construction; or
  - (3) Said owner claims that an equally good or more desirable form of construction or materials can be employed in the proposed construction than the Building Official requires; or
  - (4) Said owner claims that the true intent and meaning of this Building Code or of any of its regulations have been misconstrued or wrongly interpreted.

- An administrative fee, as set by resolution of the Arlington City Council, shall accompany the notice of appeal which the owner or an authorized agent must file in writing with, and on a form provided by, said Building Official.
- B. The notice of appeal shall be filed within thirty (30) days after the Building Official renders a decision: provided, however, that said Building Official may limit the time for appeal to a shorter period in cases involving buildings or structures that are, in the Building Official's opinion, unsafe or dangerous.
  - C. Initiating work, progressing with that portion of work which is the particular issue on appeal, or progressing with work which would cover the matter on appeal, shall void such appeal. (Amend Ord 96-93, 7/2/96)

**Section 2.07 Board Decisions; Variations and Modifications**

- A. The Board, when appealed to, shall conduct a hearing and, after such hearing, may vary the application of any provision of this Building Code to any particular case when, in its opinion, the enforcement thereof would do manifest injustice and would be contrary to the spirit and purpose of said Building Code or the public interest, or when, in its opinion, the interpretation of the Building Official should be modified or reversed for any other reason.
- B. A decision of the Board to vary the application of any provision of this Building Code or to modify an order of the Building Official shall specify in what manner such variation or modification is made, the conditions upon which it is made and the reasons therefor.

**Section 2.08 Board Decisions; Procedure**

- A. Every decision of the Board shall be final: subject, however, to such remedy as any aggrieved party might have at law or in equity. The decision shall be in writing and shall indicate the vote upon the decision. Every decision shall be promptly filed in the office of the Building Official and shall be open to the public for inspection. A true and correct copy of the decision shall be sent by mail or otherwise to the

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appellant and a copy shall be publicly posted in the office of the Building Official for two (2) weeks after the filing thereof.

- B. The Board shall in every case reach a decision without unreasonable or unnecessary delay.
- C. If a decision of the Board reverses or modifies any decision of the Building Official or varies the application of any provision of this Building Code, the Building Official shall immediately take action in accordance with such decision.
- D. Any person, firm or corporation aggrieved by any decision of the Board may present to a court of record a petition, duly verified, setting forth that such decision is illegal in whole or in part, and specifying the grounds of the illegality. Unless such petition (appeal) shall be presented to the court within ten (10) days of the decision of the Board, the decision of the Board shall become final. (Amend Ord 89-76, 6/27/89)

**Section 2.09 Model Code Adoption or Amendment**

- A. In this section, "national model code" means a publication that is developed, promulgated, and periodically updated at a national level by organizations consisting of industry and government fire and building safety officials through a legislative or consensus process and that is intended for consideration by units of government as local law. National model codes include the International Residential Code, the National Electrical Code, and the International Building Code.
- B. The Board is established as an advisory board for the purpose of obtaining public comment on the proposed adoption of or amendment to a national model code, and providing a recommendation to City Council. On or before the 10th day before the date the Board conducts a public hearing to consider the adoption of or amendment to a national model code, the City shall publish notice of the proposed action and the date of the public hearing conspicuously on the City's Internet website.

- C. Except as provided by Subsection (D), adoption of an ordinance or national model code provision that is intended to govern the construction, renovation, use, or maintenance of buildings and building systems in the City shall have a delayed effective date that will delay implementing and enforcing the ordinance or code provision for at least 30 days after final adoption of the ordinance, to permit persons affected to comply with the ordinance or code provision.
- D. If a delay in implementing or enforcing the ordinance or code provision would cause imminent harm to the health or safety of the public, the City may enforce the ordinance or code provision immediately on the effective date of the ordinance or code provision.  
(Amend Ord 09-032, 6/23/09)

**ARTICLE III**  
**MOVED BUILDINGS**

**Section 3.01 Registration and Permits**

- A. Registration Required. No building or part of any building shall be moved through or across any sidewalk, street, alley or highway by any person who is not a registered building mover, as hereinafter provided, unless moved solely on a State highway. This registration for a building mover shall be issued by the Building Official after application has been submitted according to the provisions of this Article and after coordination and approval of said application by the Police, Transportation and other appropriate departments of the City of Arlington.
- B. Permit Required. Subject to the exception contained in Subsection (C) below, no building or part of any building shall be moved through or across any sidewalk, street, alley or highway within the City of Arlington unless and until an Oversize and Overweight Vehicle Permit complying with the provisions of Article XIV of this Building Code below shall first have been obtained from the Building Official.
- C. Exception: The provisions of this Article shall not apply to manufactured housing which is moved over the highways, roads and streets of the City of Arlington in accordance with permits issued by the State Department of Highways and Public Transportation. For the purposes of this Section, "manufactured housing" shall be as defined by the Texas Manufactured Housing Standards Act, V.A.C.S., Article 5221f.

**Section 3.02 Application for Registration and Permits**

- A. Registration Information Required. An applicant for registration under this Article shall comply with requirements for registration as described in Article IV. (Amend Ord 97-90, 7/1/97)
- B. Permit Information Required. Any registered building mover desiring a moving permit shall file with the Building Official a written application therefor not less than five (5) days prior to the proposed date of

removal, setting forth the following information in addition to the applicable requirements of Article IV of this Building Code below:

- (1) The present location of the building to be moved and its proposed new location by lot, block, subdivision and street address;
- (2) The date and approximate time such building will be upon the streets;
- (3) The proposed route from the present to the new location; and
- (4) Such other pertinent information as the Building Official may deem necessary.

**Section 3.03 Building Official Shall Reject**

A. If, in the opinion of the Building Official:

- (1) The moving of any building will cause serious injury to persons or property, or serious injury to the streets or other public improvements;
- (2) The building to be moved has deteriorated by more than fifty percent (50%) of its original condition for any reason; or
- (3) The moving of the building will violate any of the requirements of this Building Code or the "Zoning" Chapter of the Code of the City of Arlington;

the permit shall not be issued and the building shall not be moved over the streets.

B. If, in the opinion of the Building Official, the moving of a building upon any lot in the City of Arlington will cause injury to persons or property or will depreciate the value of surrounding property, the permit shall not be issued. Any building moved onto a lot in said City shall immediately be brought up to the standard prevailing in an area within a six hundred foot (600') radius of the site onto which said building is moved.

**Section 3.04 Prolonged Damage**

A. Mover Liability. A registered building mover shall employ such procedures and equipment as will preclude undue wear or damage to streets, curbs, sidewalks, trees, highways or other public property caused by the operation of moving. Said mover shall also employ such procedures and equipment as will ensure timely travel within or through the City of Arlington without unnecessary interruption. Failure to:

- (1) Complete the move within or through said City;
- (2) Repair damage caused to streets or other public property; or
- (3) Clear from the streets or other public property all debris related to the moving process within the time limits set forth in the permit;

shall constitute a separate offense by the building mover for each day such condition is allowed to exist after the expiration of the appropriate time limit.

B. Owner Liability: When a building is to be moved onto a property that is within the City of Arlington, the issuance of the moving permit shall be further conditioned on submittal of written confirmation by the owner of such property that the moved building shall, in not more than one hundred eighty (180) days from the date the building arrives at its destination, be brought to a habitable condition and be in compliance with this Building Code and other pertinent Chapters of the Code of said City. Failure to satisfy such a schedule shall be grounds for denying a Certificate of Occupancy and shall constitute a separate offense by the owner of the property for each day such condition continues.

**Section 3.05 Public Safety Requirements**

A registrant under this Article shall comply with the public safety requirements set forth in Section 6.03E.3 of the "Traffic" Chapter of the Code of the City of Arlington as a prerequisite condition to the issuance of a permit and while performing under said permit.

**Section 3.06 Other Permits**

Nothing contained herein shall be construed as relieving an applicant from duties elsewhere imposed by law, including, but not limited to, ordinances regulating truck routes and load limits and the obtaining of permits and payment of fees therefor, or other provisions of the Code of the City of Arlington.

**Section 3.07 Utility Relocations**

In the event the removal of a building requires the removal or adjustment, temporarily or otherwise, of any wire, line, pole or other impediment which is lawfully located on or over public property, the expense thereby incurred shall be borne solely by the person registered under Section 3.02(a) of this Article.

Further, all water, sewer and gas lines must be capped off within five feet (5') of the property line in accordance with the "Plumbing" Chapter of the Code of the City of Arlington.

**Section 3.08 Other Relocations**

All improvements other than those specified in Section 3.08 above on a lot from which a building has been moved must be removed, including the foundation, plumbing, accessory structures, etc., unless specific written authorization to leave said improvements is given to the mover by the Building Official or an authorized representative.

**Section 3.09 Inspections**

Once the structure has been removed, the building mover must call an inspection. Plumbing capped off shall remain uncovered in order to facilitate inspection. (Amend Ord 98-141, 10/27/98)

**Section 3.10    Other**

If a building is to be relocated within the corporate limits of the City of Arlington, a building permit must be submitted at the new address and approved prior to locating the structure at the new site. (Amend Ord 97-90, 7/1/97)

## ARTICLE IV

### REGISTRATION, PERMITS AND INSPECTIONS

#### Section 4.01 Registration

- A. **Registration Required.** It shall be unlawful for any person, firm or corporation to erect, construct, enlarge, alter, repair, move, improve, remove, convert or demolish any building, sign or structure in the City of Arlington, or cause the same to be done, unless such person, firm or corporation is the holder of a valid registration with said City to perform such work. Such person, firm or corporation shall be herein termed Registrant. In extending the rights and privileges of such registration, said City makes no statement of the technical competency of those so registered, and no manner of license is proffered.
- B. An applicant for registration under this article shall provide to the Building Official the following information:
1. The complete name, complete mailing address and telephone number of the firm or corporation;
  2. The name and private mailing address of a principal of the firm or corporation who is a person authorized to bind the firm or corporation in legal agreements;
  3. If the registration is to be as an individual only, the name, mailing address and telephone number of the individual; and
  4. Other pertinent information deemed necessary by the Building Official.

Every Registrant shall contact the office of the Building Official to ensure the accurate revision of registration information, including any change of address or telephone number, within ten (10) days from the date that the previous information supplied in the application becomes invalid for any reason. Failure to revise inaccurate information, or providing false, misleading or inaccurate information when applying for registration, shall constitute an offense.

Every Registrant doing work in any City rights-of-way shall carry Contractor's Public Liability Insurance with a combined single limit of not less than Five Hundred Thousand and No/100 Dollars (\$500,000.00) per occurrence, with an

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- aggregate of not less than Five Hundred Thousand and No/100 Dollars (\$500,000.00). The Registrant shall make the City of Arlington a Certificate Holder and present proof of insurance at the time of registration and all subsequent renewals. Notice of policy cancellations or failure to renew coverage shall be cause for revocation of registration, denial of inspections or cancellation of permits. (Amend Ord 98-141, 10/27/98)
- C. **Building Official Shall Respond.** After application for registration has been received, the Building Official shall act promptly to issue the registration or to determine upon what basis the registration may not be issued. The Building Official shall respond to the applicant not later than two (2) weeks following receipt of the application.
- D. **Expiration and Renewal of Registration.** Expired registrations shall be routinely reactivated by payment of a renewal fee if the application information remains accurate. Fees for initially establishing registration and for renewal of registration shall be set in accordance with Section 4.09 below. A registration may be renewed without penalty at any time from sixty (60) days preceding the date of expiration through ninety (90) days following the date of expiration. A registration not renewed for ninety (90) days beyond the date of expiration shall require resubmittal of registration information and payment of a fee as for an initial registration.
- E. **Transfer of Registration Prohibited.** No Registrant under this article shall for any purpose allow the registration, by name or other identification, to be transferred or assigned to, or in any manner directly or indirectly used by, any person, firm or corporation other than the one to whom the registration was issued. Company representatives other than the registered principal shall be required to have a notarized statement from the principal in order to transact business.
- F. **Registration Suspended.** The Building Code Board of Appeals shall have the authority to suspend any registration issued under this article for any of the following acts by the Registrant:
1. Forfeiting an appeal of a Stop Order issued under I.B.C. and I.R.C., Section 114, by continued work after the issuance of said Stop Order; (Amend Ord 02-020, 2/5/02)

2. Forfeiting an appeal under Section 2.06(C) above of this Building Code by initiating work in violation of the Board's decision or prior to the Board's decision;
3. Causing or permitting the unauthorized or prohibited transfer or assignment of a valid registration, or providing false, misleading or inaccurate information when applying for registration;
4. Being convicted in Municipal Court of two (2) violations of any of the provisions of this Building Code committed within a period of twelve (12) consecutive months provided, however, that remedy of the violation within twenty (20) days of a Stop Order shall cause the waiver of any conviction for the original violation for the purpose of this subsection;
5. Failure of a registered contractor to secure permits prior to commencement of work necessitating such permit;
6. Failure of a registered contractor to request all inspections as may be established by the Construction Chapter; or
7. Failure of a registered contractor to provide the Building Official accurate revisions of registration information, including any change of address or telephone number and/or licensees. (Amend Ord 12-020, 4/24/12)

Such suspension of registration shall be for a time not to exceed six (6) months. After expiration of such period of time as the Board shall have designated, and after payment of any outstanding fines and the routine renewal fee if it has become due in the interim, the suspended registration shall again become valid and effective for the balance of its time until expiration or a subsequent suspension or revocation. (Amend Ord 98-141, 10/27/98)

G. **Registration Revoked.** The Building Code Board of Appeals shall have the authority to revoke any registration issued under this article for:

1. Conviction of the practice of any fraud or deceit in securing a registration or a permit, or of a violation of Subsection (E) above;
2. Convictions in Municipal Court of three (3) violations of any of the provisions of this Building Code committed within a period of twelve (12) consecutive months: provided, however, that remedy of the violation

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within twenty (20) days of a Stop Order shall cause the waiver of any conviction for the original violation for the purpose of this subsection;

3. Accumulation of two (2) decisions of the Board to suspend registration; or
4. Accumulation within a period of twelve (12) months of two (2) forfeitures of appeals of Stop Orders issued under I.B.C. and I.R.C., Section 114, by continued work after the issuance of said Stop Orders. (Amend Ord 02-020, 2/5/02)

Such revocation of registration by the Board shall be full and final cancellation of such registration and shall be effective on the date of the Board's decision. No Registrant whose registration is revoked by the Board shall be allowed in the future to be registered again in the City of Arlington under this article.

H. **Suspension or Revocation Hearing.** In considering charges under this article regarding suspension or revocation of a registration, the Building Code Board of Appeals shall proceed upon sworn information furnished it by any person or upon information provided by the Building Official. Such information shall be in writing and shall be duly verified by the person familiar with the allegations made. The Board shall make an order setting the matter for hearing at a specified time and place, and the Secretary of the Board shall cause a copy of the Board's order and of the sworn information to be served upon the Registrant by registered mail at least fifteen (15) days before the date set for the hearing. The Registrant may appear in person or by counsel at the time and place named in the order and present a defense to the Board. The City Attorney for the City of Arlington shall provide counsel for the Board. If the Registrant fails or refuses to appear, the Board may proceed to hear and determine the charge in the registrant's absence. If the registrant pleads guilty or if, upon a hearing, the Board finds any of the charges to be true, it may enter an order suspending or revoking the certificate of registration. Failure to properly perfect an appeal in a court of competent jurisdiction within ten (10) days of receipt of the Board's decision shall render the Board's decision final. Suspension or revocation of a registration resulting from a decision of the Board shall preclude the Registrant from securing a permit for work controlled by that registration in the City of Arlington or from becoming so registered under any different identification as long as the suspension or revocation is in effect. (Amend Ord 12-020, 4/24/12)

I. **Exemption for Owner.** Except for permits required by Article VIII below, a homeowner's registration shall be required for work to be performed on an existing structure when the person performing the work is the owner of the

structure who resides therein as his homestead, and is not assisted by any other person for remuneration. The homeowner shall be termed a Registrant for the purposes of such a project after proper registration. All requirements for permits for the work and all other applicable provisions of this Building Code shall remain in force. (Amend Ord 09-024, 5/5/09)

**Section 4.02 Commercial Site Plan and Permits Required**

A. It shall be unlawful for any Registrant or person without first obtaining a separate building permit for such work from the Building Official:

1. to erect, construct, enlarge, alter, repair, move, improve, remove, convert or demolish any building or structure;

EXCEPTION: see exceptions in paragraphs B and C below.

2. to install, enlarge or repair any fence;

EXCEPTION: Repair or replacement of fencing where not less than 50% of one side of the fence is being repaired and/or replaced.

3. to erect, alter a sign, including the copy face or lettering of any sign, either by changing the message or by renovating an existing message, or erect any sign or sign structure;

EXCEPTION: Changing a changeable copy message or a message center sign message; general maintenance such as repainting the same message or changing the face of a sign permitted as an off-site advertising sign;

4. to reroof any building or structure;

5. to excavate, grade, or fill property, or cause the same to be done;

EXCEPTION: Excavation for construction of a structure permitted under this code; Refuse disposal sites controlled by other regulations; Excavations for wells, or trenches for utilities; Mining, quarrying, excavating, processing or stockpiling rock, sand, gravel, aggregate or clay controlled by other regulations, provided such operations do not affect the lateral support of, or significantly increase stresses in, soil on adjoining

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properties; or, Exploratory excavations performed under the direction of a registered design professional.

Separate permits are required for electrical, plumbing and mechanical work as set forth in the Electrical, Mechanical and Plumbing Chapters of this Code.

- B. Permits shall not be required for the following items. Exemption from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances.
1. Retaining walls that are not over 4 feet (1219 mm) in developed height at any point when measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or imposed load or impounding Class I, II or IIIA liquids. See Article 1 of this Chapter regarding “tiered” retaining walls.
  2. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
  3. Swings and other playground equipment.
  4. Prefabricated inflatable swimming pools that are less than 24 inches (610 mm) deep.
  5. Window awnings supported by an exterior wall which do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support.
  6. Replacement of siding materials with materials of similar character. The installation of siding systems such as, but not necessarily limited to, stucco and Exterior Insulation and Finish Systems, require a permit.
  7. Nonfixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches (1753 mm) in height.
  8. Shade cloth structures constructed for nursery or agricultural purposes.  
(Amend Ord 13-055, 12/3/13)
- C. For 1-and 2-family structures only regulated by the I.R.C., permits shall not be required for the following items. Exemption from permit requirements of this

code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances.

1. Building:

- a. One-story detached accessory structures used as tool and storage sheds and similar uses, provided the floor area does not exceed 100 square feet (9.29 m<sup>2</sup>).
- b. Flatwork (pedestrian sidewalks, vehicle parking and maneuvering areas) on private property. (Amend Ord 13-055, 12/3/13)

2. Electrical:

- a. Listed cord-and-plug connected temporary decorative lighting.
- b. Reinstallation of attachment plug receptacles but not the outlets thereof.
- c. Replacement of branch circuit over current devices of the required capacity in the same location.
- d. Electrical wiring, devices, appliances, apparatus or equipment operating as less than 25 volts and not capable of supplying more than 50 watts of energy.
- e. Minor repair work, including the replacement of lamps or the connection of approved portable electrical equipment to approved permanently installed receptacles.

2. Plumbing

- a. Portable heating, cooking or clothes drying appliances.
- b. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.
- c. Portable-fuel-cell appliances that are not connected to a fixed piping system and are not interconnected to a power grid.
- d. The stopping of leaks in drains, water, soil, waste or vent pipe; provided, however, that if any concealed trap, drainpipe, water,

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soil, wasted or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work and a permit shall be obtained and inspection made as provided in this code.

- e. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, and the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures.

#### 3. Mechanical

- a. Portable heating appliances.
- b. Portable ventilation appliances.
- c. Portable cooling units.
- d. Steam, hot- or chilled-water piping within any heating or cooling equipment regulated by this code.
- e. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.
- f. Portable evaporative coolers.
- g. Self-contained refrigeration systems containing 10 pounds (4.54 kg) or less of refrigerant or that are actuated by motors of 1 horsepower (746 W) or less.
- h. Portable-fuel-cell appliances that are not connected to a fixed piping system and are not interconnected to a power grid.

D. Emergency Repairs. Where equipment replacements and repairs must be performed in an emergency situation, the permit application shall be submitted within the next working day to the building official.

E. For other than 1 and 2 family dwellings, approval of a Commercial Site Plan is required prior to filing the application for a building permit. Two copies of the "Accepted for Construction" Commercial Site Plan shall be submitted with each application for a building permit for the following work categories:

1. The construction of a new building,
  2. The construction of an addition to an existing building.
  3. The grading, excavation or filling of a parcel when such work is not included in the scope of an issued building permit.
- F. A Commercial Site Plan shall demonstrate compliance with the applicable zoning, environmental, fire and engineering regulations specific to the proposed project.
- G. A permit shall be issued only to a Registrant meeting the conditions of Section 4.01 above, and only after all other requirements defined in this article have been accomplished. (Amend Ord 12-020, 4/24/12)

**Section 4.02.5 Application for Commercial Site Plan**

- A. To obtain approval for a Commercial Site Plan, the applicant shall first file an application with the Building Official in writing on a form furnished for that purpose by said Building Official. Every such application shall:
1. Identify and describe the proposed development;
  2. Describe the land on which the proposed work is to be done by lot, block, tract and building and street address, or similar description that will readily identify and definitely locate the proposed building or work;
  3. Be accompanied by plans and specifications as required to demonstrate compliance with the zoning, environmental, engineering and fire regulations applicable to the project location;
  4. Be signed by the applicant or an authorized agent, who may be required to submit evidence to indicate such authority; and
  5. Give such other pertinent information as is deemed necessary by the Building Official.
- B. Accepted plans and specifications shall not be changed, modified or altered without written authorization from the Building Official, and all work shall be done in accordance with the approved plans.

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- C. Final plans or other documents that will be archived must be submitted in an electronic format specified by the Director of Community Development and Planning ("CDP Director") as a condition to issuance of any type of permit, approval, or other action related to the final plans or documents. The City may provide an electronic conversion service for a fee in the amount set forth by City Council resolution. The CDP Director shall provide a schedule indicating which documents must be provided electronically, at which point during the approval process, and other information as necessary to implement an electronic archiving program. (Amend Ord 10-009, 1/12/10)

### **Section 4.03 Application for Permit**

To obtain a permit, the applicant shall first file an application with the Building Official in writing on a form furnished for that purpose by said Building Official. Every such application shall:

- A. Identify and describe the work to be covered by the permit for which application is made;
- B. Describe the land on which the proposed work is to be done, by lot, block, tract, and building and street address, or similar description that will readily identify and definitely locate the proposed building or work;
- C. Indicate the use or occupancy for which the proposed work is intended;
- D. Be accompanied by plans and specifications as required in Section 4.04 of this article below;
- E. State the fair market construction valuation of the proposed work; (Amend Ord 12-020, 4/24/12)
- F. Be signed by the applicant (Registrant) or an authorized agent, who may be required to submit evidence to indicate such authority; (Amend Ord 96-93, 7/2/96)
- G. In the case of single family residential construction permits, include a certification by the builder that the structure will comply or will not comply with applicable deed restrictions or real property restrictive covenants; and

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(Amend Ord 12-020, 4/24/12)

- H. Give such other pertinent information as is deemed necessary by the Building Official. (Amend Ord 91-09, 1/22/91)

**Section 4.04 Plans and Specifications**

- A. With each application for a building permit and when required by the Building Official for enforcement of any provisions of this Building Code, two (2) or more sets of plans and specifications shall be submitted. The Building Official may require plans, computations and specifications to be prepared and designed by an engineer or architect licensed by the State of Texas to practice as such even if not required by State law. The engineers' or architects' professional seal shall be affixed to the documents.

EXCEPTION: Except when specifically required by the Building Official, plans, computations and specifications need not be submitted for the following:

- (1) One (1) story buildings of Type V conventional wood frame construction, with an area not exceeding six hundred (600) square feet;
  - (2) Groups R-3 and U Occupancies of Type V conventional wood frame construction; or
  - (3) The Building Official may waive the submission of plans, calculations, construction, inspection requirements and other data if it is found that the nature of the work applied for is such that reviewing of plans is not necessary to obtain compliance with the Code.
- B. Plans and specifications shall be drawn to scale and shall be of sufficient clarity to indicate the nature and extent of the work proposed and show in detail that it will conform to the provisions of this Building Code and all other relevant laws, ordinances, rules and regulations. The first sheet of each set of plans shall give the building and street address where the work is to be performed and the name and address of the owner and person who prepared said plans. Plans shall include a plot plan showing the location of the proposed building and of every existing building on the property. In lieu of detailed specifications, the Building Official may approve references on the plans to a specific section or part of this Building Code or other ordinances or laws. The construction documents shall also be in conformance with the following:

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- (1) **Means of egress.** The construction documents shall show in sufficient detail the location, construction, size and character of all portions of the means of egress in compliance with the provisions of this code. In other than occupancies in Groups R-2, R-3, and I-1, the construction documents shall designate the number of occupants to be accommodated on every floor, and in all rooms and spaces.
- (2) **Exterior wall envelope.** Construction documents for all buildings shall describe the exterior wall envelope in sufficient detail to determine compliance with this code. The construction documents shall provide details of the exterior wall envelope as required, including flashing, intersections with dissimilar materials, corners, end details, control joints, intersections at roof, eaves or parapets, means of drainage, water-resistive membrane and details around openings.

The construction documents shall include manufacturer's installation instructions that provide supporting documentation that the proposed penetration and opening details described in the construction documents maintain the weather resistance of the exterior wall envelope. The supporting documentation shall fully describe the exterior wall system which was tested, where applicable, as well as the test procedure used.

- (3) **Demolition permits.** In the case of proposed demolition, the site plan shall show construction to be demolished and the location and size of existing structures and construction that are to remain on the site or plot. (Amend Ord 12-020, 4/24/12)
- C. Computations, stress diagrams and other data sufficient to show the correctness of the plans shall be submitted when required by the Building Official. Plans by the applicant for buildings more than two (2) stories in height of other than Group R-3 and U Occupancies shall indicate how required structural and fire-restrictive integrity will be maintained where a penetration will be made for electrical, mechanical, plumbing and communications conduits and pipes, and similar systems. (Amend Ord 96-93, 7/2/96)
- D. Final plans or other documents that will be archived must be submitted in an electronic format specified by the Director of Community Development and Planning ("CDP Director") as a condition to issuance of any type of permit, approval, or other action related to the final plans or documents. The City may provide an electronic conversion service for a fee in the amount set forth by City Council resolution. The CDP Director shall provide a schedule indicating which

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(Amend Ord 12-020, 4/24/12)

documents must be provided electronically, at which point during the approval process, and other information as necessary to implement an electronic archiving program. (Amend Ord 10-009, 1/12/10)

#### **Section 4.05 Building Permits Issued**

- A. The Building Official shall examine or cause to be examined the application, plans and specifications filed by an applicant for a permit shall be reviewed. Such plans may also be reviewed by other departments of the City of Arlington to check compliance with the laws and ordinances under their jurisdiction, including but not limited to review by the Engineering, Fire, Community Services, Community Development and Planning, and the Public Works and Transportation Department of the City of Arlington to ensure compliance with the Traffic Study Provisions adopted by resolution of the City Council. If the Building Official finds that the work described in an application for permit and the plans filed therewith conform to the requirements of this Building Code and other pertinent laws and that the permit fee has been paid, a permit shall be issued.

**EXCEPTION:** Except by specific approval by the Building Official or an authorized representative, a permit shall not be issued in a development where the construction of streets, drainage, water, sewer and other such public improvement facilities have not been completed and accepted by the City of Arlington.

In lieu of the plan review performed by the Building Official, the owner of a property may choose to contract with a Third Party Provider that is properly registered with the City for plan review. Plan reviews performed by Third Party Organizations are subject to the terms of the program as authorized by resolution of the City Council of the City of Arlington.

- B. **Approval of construction documents.** When the building official issues a permit, the construction documents shall be approved, in writing or by stamp, as;

"CITY OF ARLINGTON APPROVED PLANS. These plans must be kept on the job site and be available at the inspector's request. Changes to these plans must be approved in the same manner as these plans were approved."

One set of construction documents so reviewed shall be retained by the building official. The other set shall be returned to the applicant, shall be kept at the site of

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work and shall be open to inspection by the building official or a duly authorized representative.

- C. Accepted plans and specifications shall not be changed, modified or altered without written authorization from the Building Official, and all work shall be done in accordance with the plans.
- D. The Building Official may issue a permit for the construction of part of a building or structure before the entire plans and specifications for the whole building or structure have been submitted or approved, provided adequate information and detailed statements have been filed complying with all pertinent requirements of this Building Code. The holder of such permit shall proceed at personal risk without assurance that the permit for the entire building or structure will be granted.

Deferred submittals.

For the purposes of this section, deferred submittals are defined as those portions of the design that are not submitted to the building official at the time of the application and that are to be submitted to the building official within a specified period.

Deferred submittals shall have the prior approval of the building official. The registered design professional in responsible charge shall list the deferred submittals on the construction documents for review by the building official.

Documents for deferred submittal items shall be submitted to the registered design professional in responsible charge who shall review them and forward them to the building official with a notation indicating that the deferred submittal documents have been reviewed and found to be in general conformance to the design of the building. The deferred submittal items shall not be installed until the deferred submittal documents have been approved by the building official.

- E. Upon issuance of a building permit, the Building Official will issue a Building Permit representing that a permit has been issued. The Building Permit shall contain the address and legal description of the location, the name of the general contractor and a description of the work. The Building Permit shall be posted on the job location at all times during the time the building permit is valid and may not be removed until such time that the Building Official issues a final approval. The Building Permit shall be posted in front of the building so that it is visible from the addressed street or fire lane at all times. Work may be ordered to stop when such Building Permit is not displayed in accordance with this section. (Amend Ord 12-020, 4/24/12)

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(Amend Ord 12-020, 4/24/12)

**Section 4.05.5 Expiration of Commercial Site Plan**

Every Commercial Site Plan approved by the Building Official under the provisions of this Building Code shall expire by limitation of time and become null and void if the owner, agent or authorized developer has not filed a valid application for a building permit within one hundred eighty (180) days from the date of approval of the Commercial Site Plan. An expired Commercial Site Plan must be reviewed as a new application before an application for a building permit may be submitted. (Amend Ord 09-024, 5/5/09)

**Section 4.06 Validity of Permit**

The issuance or granting of a permit or acceptance of plans and specifications shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of this Building Code or any other applicable law. No permit presuming to give authority to violate or cancel the provisions of this Building Code shall be valid, except as the work or use, which it authorizes, is lawful.

The issuance of a permit based upon plans and specifications shall not prevent the Building Official from thereafter requiring the correction of errors in said plans and specifications or from preventing building operations being carried on thereunder when in violation of this Building Code or of any other chapter of the Code of the City of Arlington.

In the event a court of competent jurisdiction determines that lawfully filed deed restrictions or lawfully filed real property restrictive covenants on single family residential property within the City of Arlington would be violated by the construction that is the subject of the permit, such court may restrain or enjoin the Building Official from issuing the building permit for a period not to exceed sixty (60) days. (Amend Ord 98-141, 10/27/98)

**Section 4.07 Expiration of Permit**

Every permit issued by the Building Official under the provisions of this Building Code shall expire by limitation of time and become null and void if the building or work authorized by such permit is not commenced within one hundred eighty (180) days from the date of such permit, or if the building or work authorized by such permit is suspended or abandoned for a period of one hundred eighty (180) days at any time after the work is commenced. Before such work can be recommenced, a new permit shall be first obtained.

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Any permittee holding an unexpired permit may apply in writing for an extension of the time within which work may commence under that permit when the permittee is unable to commence work within the time required for good and satisfactory reasons. The Building Official may extend the time for action by the permittee for a period not exceeding one hundred eighty (180) days. The permittee shall pay a fee for the extension of an unexpired permit. No permit shall be extended more than once.

(Amend Ord 09-024, 5/5/09)

### **Section 4.08 Suspension or Revocation of Permit**

- A. The Building Official may, in writing, suspend or revoke a permit issued under provisions of this Building Code whenever the permit is issued in error or on the basis of incorrect information having been supplied, or in violation of any law, including any provision of the Code of the City of Arlington. The Building Official may also deny building inspections or new permits to a contractor whose business registration with the City of Arlington is not in active status.
- B. The Building Official may, in writing, revoke a permit for the construction of a 1- and 2-family dwelling issued under provisions of this Building Code whenever the completion of the project is delayed beyond a 24 month period if there has not been substantial progress made towards completion of the project.

(Amend Ord 09-024, 5/5/09)

### **Section 4.09 Building Permit Fees**

A fee for each permit required by this Building Code and any plan review fees shall be set by resolution of the City Council and shall be paid to the Building Official prior to the issuance of such permit and review of any plans. The determination of value or valuation hereunder shall be made by said Building Official. The valuation to be used in computing the permit and plan review fees shall be the total value of all construction work for which the permit is issued, as well as all finish work, painting, roofing, electrical, plumbing, heating, air conditioning, elevators, fire-extinguishing systems and any other permanent work or permanent equipment. All methods of calculation and restrictions set forth in Section 5.01 of this Chapter shall apply to said fees.

Where work for which a permit is required by this Building Code is begun prior to obtaining said permit, the specified fees shall be doubled, but the payment of such double

fee shall not relieve any persons from fully complying with the requirements of this Building Code in the execution of the work nor from any other penalties prescribed herein.

#### **Section 4.10 Plan Review Fees**

When issuance of a permit depends on review and acceptance of drawings depicting the proposed work, a plan review fee shall be paid at the time of submitting the drawings for review. The plan review fee shall be nonrefundable. The building permit application shall not be received until the plan review fee is paid. The plan review fee shall be set from time to time by resolution of the City Council of the City of Arlington. (Amend Ord 04-086, 9/21/04)

#### **Section 4.11 Expiration of Building Permit Application and Plan Review**

An application for which no building permit is issued within one hundred eighty (180) days following the date of application may be voided due to limitation of time, and plans submitted for review may thereafter be returned to the applicant or destroyed by the Building Official. The Building Official may extend the time for action on the application due to circumstances beyond the control of the applicant which have prevented action from being taken. The application may be extended for an additional 180 days upon a request in writing submitted to the Building Official. The application may be extended upon approval by the Building Official and payment of the extension fee prior to the expiration of the building permit application. An expired application may only be reactivated by the filing of a new application, including plans and fees. An applicant's written request for voluntary withdrawal of the application shall be deemed to be the same as an expiration of the application. (Amend Ord 09-024, 5/5/09)

#### **Section 4.11.5 Expiration of Commercial Site Plan Application**

- A. An application for a Commercial Site Plan that is not approved for permitting within one hundred eighty (180) days following the date of application may be voided due to limitation of time, and plans submitted for review may thereafter be returned to the applicant or destroyed by the Building Official. The Building Official may extend the time for action on the application due to circumstances beyond the control of the applicant which have prevented action from being taken. The application may be extended for an additional 180 days upon a request in writing submitted to the Building Official. The application may be extended upon

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- approval by the Building Official. An expired application may only be reactivated by the filing of a new application, including plans and any fees prior to the expiration of the Commercial Site Plan. An applicant's written request for voluntary withdrawal of the application shall be deemed to be the same as an expiration of the application.
- B. In cases where a building permit has expired due to limitations, a Commercial Site Plan will expire 24 months from the date of Commercial Site Plan approval if an application for another building permit is not filed.
  - C. In cases where development is phased, a Commercial Site Plan will expire 24 months from the date of Commercial Site Plan approval if an application for a building permit is not filed for all of the undeveloped phases. (Amend Ord 09-024, 5/5/09)

### **Section 4.12 Refunds**

There shall be no refund of any plans review fee. A permit fee may be refunded only upon the following: (Amend Ord 12-020, 4/24/12)

- A. When a permit has been issued and no part of the work has commenced, a refund of 50% may be authorized. The refund shall be reduced by any applicable service charges;
- B. When the permit has been issued through an error on the part of the City of Arlington and it is found that the work applied for cannot be allowed, the refund shall be made in full;
- C. Service charges for refunds shall not exceed the original permit fees; and
- D. When the refund is requested in writing within 90 days of the date of payment. (Amend Ord 12-020, 4/24/12)

### **Section 4.13 Inspections**

- A. **General.** All construction or work for which a permit is required shall be subject to inspection by the Building Official, and certain types of construction may have continuous inspection by special inspectors as specified in Section 4.14 below.

A survey of the lot may be required by the Building Official to verify compliance of the structure with approved plans. It shall be the duty of the permittee to cause the work to be accessible and exposed for inspection purposes.

**EXCEPTION:** The owner of a property may choose to contract with a Third Party Provider that is properly registered with the City for inspections. Inspections performed by Third Party Organizations are subject to the terms of the program as authorized by resolution of the City Council of the City of Arlington. A Third Party Provider shall not be authorized to grant final approval or grant a Certificate of Occupancy. (Amend Ord 12-020, 4/24/12)

- B. **Approvals Required.** No work shall be done on any part of the building or structure beyond the point indicated in each successive inspection without the permittee first obtaining the written approval of the Building Official. Such written approval shall be given only after an inspection has been made of each successive step in the construction as indicated by each of the Required Inspections. Failure by the permittee to contact the Building Official for any required inspection shall be an offense.

There shall be a final inspection and approval on all buildings when completed and ready for occupancy before such occupancy is allowed to occur.

- C. **Required Inspections.** It shall be the duty of the holder of the building permit or their duly authorized agent to notify the building official when work is ready for inspection. It shall be the duty of the permit holder to provide access to and means for inspections of such work that are required by this code.

Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the building official. The building official, upon notification, shall make the requested inspections and shall either indicate the portion of the construction that is satisfactory as completed, or notify the permit holder or his or her agent wherein the same fails to comply with this code. Any portions that do not comply shall be corrected and such portion shall not be covered or concealed until authorized by the building official.

The Building Official, upon notification from the permit holder or an authorized agent, shall make the following inspections and shall either approve that portion of the construction as completed or shall notify the permit holder or an authorized agent in what respects the same fails to comply with this Building Code:

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1. Footing and foundation inspections. Footing and foundation inspections shall be made after excavations for footings are complete and any required reinforcing steel is in place. For concrete foundations, any required forms shall be in place prior to inspection. Materials for the foundation shall be on the job, except where concrete is ready mixed in accordance with ASTM C 94, the concrete need not be on the job.
2. Concrete slab and under-floor inspection. Concrete slab and under-floor inspections shall be made after in-slab or under-floor reinforcing steel and building service equipment, conduit, piping accessories and other ancillary equipment items are in place, but before any concrete is placed or floor sheathing installed, including any subflooring.
3. Lowest floor elevation. In flood hazard areas, upon placement of the lowest floor, including the basement, and prior to further vertical construction, the elevation certification required in Section 1612.5 shall be submitted to the building official.
4. Frame inspection. Framing inspections shall be made after the roof deck or sheathing, all framing, fireblocking and bracing are in place and pipes, chimneys and vents to be concealed are complete and the rough electrical, plumbing, heating wires, pipes and ducts are approved.
5. Lath and gypsum board inspection. Lath and gypsum board inspections shall be made after lathing and gypsum board, interior and exterior, is in place, but before any plastering is applied or gypsum board joints and fasteners are taped and finished.

**Exception:** Gypsum board that is not part of a fire-resistance-rated assembly or a shear assembly.

6. Fire-resistant penetrations. Protection of joints and penetrations in fire-resistance-rated assemblies shall not be concealed from view until inspected and approved.
7. Energy efficiency inspections. Inspections shall be made to determine compliance with the energy code and shall include, but not be limited to, inspections for:
  - a. envelope air leakage and insulation installation and *R* and *U* values;

- b. fenestration *U* values and SHGC values,
  - c. duct system sealing and insulation *R* values;
  - d. HVAC and water-heating equipment efficiency, and
  - e. Lighting switching and wattage allowances.
8. Other inspections. In addition to the inspections specified above, the building official is authorized to make or require other inspections of any construction work to ascertain compliance with the provisions of this code and other laws that are enforced by the department of building safety.
  9. Special inspections. For special inspections, see Section 1704 of the IBC.
  10. Final inspection. The final inspection shall be made after all work required by the building permit is completed.

In the event a court of competent jurisdiction determines that lawfully filed deed restrictions or lawfully filed real property restrictive covenants on single family residential property within the City of Arlington would be violated by the construction that is the subject of the final inspection, such court may restrain or enjoin the Building Official from completing a final inspection for a period not to exceed sixty (60) days. (Amend Ord 12-020, 4/24/12)

- D. **Other Inspections.** In addition to the required inspections specified in Subsection (C) above, the Building Official may make or require any other inspections of any construction work to ascertain compliance with the provisions of this Building Code and other applicable laws which are enforced by the City of Arlington.

For the purpose of determining compliance with I.B.C., Section 3402 the Building Official may cause any structure to be reinspected. (Amend Ord 12-020, 4/24/12)

- E. **Reinspections.** A reinspection fee may be assessed for each inspection or reinspection when such portion of work for which the inspection is called is not complete, when corrections called for are not made, or for failure to provide access on the date for which inspection is requested.

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This subsection is not to be interpreted as requiring reinspection fees the first time a job is rejected for failure to comply with the requirements of this Building Code, but as controlling the practice of permittees calling for inspections before the job is ready for such inspection or reinspection. Reinspection fees shall be paid in accordance with the fee schedule resolution adopted by the City Council of the City of Arlington pursuant to Section 4.09 above. In instances where reinspection fees have been assessed, additional inspection of the work may be denied until the required fees have been paid.

#### **Section 4.14 Certificate of Occupancy**

- A. When required. No premises, building or structure, except Group R-3 and Group U shall be used or occupied until a Certificate of Occupancy has been issued as provided herein. A certificate of occupancy is required when:
1. The initial occupancy of a building or tenant space.
  2. To change the tenancy or tenant of building or tenant space.
  3. To change the name or ownership of a business.
  4. To expand a lease space.
  5. To acquire a Certificate of Occupancy for a shell building. A shell Certificate of Occupancy shall not permit the use of the structure for any purposes. A shell Certificate of Occupancy is for purposes of utility releases for house meters.
  6. To “clean and show” a building or tenant space. A ”clean and show” certificate of occupancy shall not permit the use of the structure with the exception of cleaning and preparing the building or tenant space for showing prospective tenants. (Amend Ord 12-020, 4/24/12)
- B. Change in Use. Changes in the character of occupancy or use of a building shall not be made, except as specified in I.B.C., Section 3408. (Amend Ord 12-020, 4/24/12)
- C. Certificate Issued. The Building Official shall issue a Certificate of Occupancy upon a finding that the premises complies with the Building Code, provisions of the "Zoning" Chapter of the Code and all other applicable development

regulations of the City of Arlington. For new structures or when the occupant is of a different character of occupancy or use from the previous certificate holder, the Building Inspections Division shall make an inspection. Where no change in character of occupancy is proposed for a structure previously granted a Certificate of Occupancy, no inspection is necessary unless specifically required by the Building Official. In the event that a tenant space is being altered, enlarged or reduced in size, or if the Building Official believes that the previous tenant altered the space without benefit of permits, an inspection may be required prior to the occupancy. Other City departments may require inspections prior to the granting of a Certificate of Occupancy. Issuance of a Certificate of Occupancy shall not be construed as an approval of a violation of the provisions of this code or of other ordinances of the jurisdiction.

An applicant for a Sexually Oriented Business as required by the Sexually Oriented Business Chapter of the City Code must first obtain a Certificate of Occupancy for a Sexually Oriented Business from the Building Official. The Building Official shall issue or deny a Certificate of Occupancy to a Sexually Oriented Business not more than sixty (60) business days subsequent to the date of the applicant's submission of such application to the Building Official. Such application for a Certificate of Occupancy shall be deemed approved if not approved or denied within such time period.

The Certificate of Occupancy shall contain:

1. The address of the building;
  2. The name of the business located at said premises, building or structure;
  3. The allowable zoning use for which the certificate is issued;
  4. The zoning district in which the use is located; and
  5. Any conditions of the granting of the certificate. (Amend Ord 12-020, 4/24/12)
- D. Temporary Certificate. A temporary Certificate of Occupancy may be issued by the Building Official for the use of a portion or portions of a building, structure, or site prior to the completion of the entire building, structure or site improvements but only if that portion or portions can be occupied safely. The Building Official shall set a time period during which the temporary Certificate of Occupancy is valid. (Amend Ord 08-090, 9/30/08)

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- E. Posting. The Certificate of Occupancy shall be posted in a conspicuous place on the premises and shall not be removed without permission of the Building Official.
- F. Revocation. The Building Official may, in writing, suspend or revoke a Certificate of Occupancy or a temporary Certificate of Occupancy issued under the provisions of this Code whenever the certificate is issued in error, or on the basis of incorrect information supplied, or when it is determined that the building or structure or portion thereof is in violation of any ordinance or regulation or any provision of this Code or other provisions of law. Upon suspension or revocation of a Certificate of Occupancy, the Building Official shall have the authority to disconnect, or to order the electricity supply agency to disconnect, all electric service to any premises affected by the revoked or suspended Certificate of Occupancy. (Amend Ord 12-020, 4/24/12)
- G. Permits, Inspections, Certificates and Approvals for Sexually Oriented Businesses. The provisions of Subsections 4.01 (H), (I) and (J) of the Sexually Oriented Business Chapter of the Code of the City of Arlington, Texas, 1987, apply and prevail over any provision of this Construction Chapter with respect to the processing of applications, permits, inspections, certificates and approvals regarding sexually oriented businesses. (Amend Ord 03-087, 7/29/03)
- H. Application Required. Any person, firm or corporation desiring to initially occupy a building or tenant space, to change the tenancy of building or tenant space, change the name or ownership of a business, to expand a lease space, to clean and show a building or tenant space or to acquire a Certificate of Occupancy for a shell building must complete an application and submit to the Building Official for review along with the non-refundable application fee as set forth by resolution by the City Council. The application shall contain the following information:
1. The address of the application,
  2. The proposed business name of the occupant and/or tenant,
  3. The proposed use of the building or tenant space,
  4. The gross floor area of the proposed use,

5. The individual's name of the principal or owner of the proposed use of the building or lease space, or the name of a presiding officer of a firm, corporation, partnership or other business entity of the proposed use of the building or lease space,
6. The mailing address (other than location being applied for) of the principal or owner,
7. The Texas Driver's License number or other government issued picture identification of the principal or owner,
8. Proof of a State of Texas Limited Sales and Use Tax Certificate with a valid City of Arlington business locations for proposed businesses that will collect a sales and/or use tax, and
9. Other information as determined necessary for the building official to determine that the proposed use satisfies all the development regulations of the City of Arlington.

The application shall be submitted and signed by the principal, owner or designated agent of the principal or owner and the designated agent's Texas Driver's License number or other government issued picture identification certifying that the applicant is authorized agent so empowered to make the application on behalf of the principal or owner and agrees to be subject to the same rules of review and approval as the principal or owner. (Amend Ord 04-004, 1/13/04)

#### **Section 4.15 Indemnification**

**REGISTRANTS UNDER THIS BUILDING CODE SHALL INDEMNIFY, WAIVE ALL CLAIMS, RELEASE, DEFEND AND HOLD HARMLESS THE CITY OF ARLINGTON AND ALL OF ITS OFFICIALS, OFFICERS, AGENTS, EMPLOYEES AND INVITEES, IN BOTH THEIR PUBLIC AND PRIVATE CAPACITIES, FROM ANY AND ALL LIABILITY, CLAIMS, SUITS, DEMANDS OR CAUSES OF ACTION, INCLUDING ALL EXPENSES OF LITIGATION AND/OR SETTLEMENT WHICH ARISE FROM OR RESULT FROM THE ISSUANCE AND EXERCISE OF A PERMIT ISSUED HEREUNDER PURSUANT TO AN APPLICATION FROM A REGISTRANT, WHETHER SUCH CLAIMS AND/OR DAMAGES ARISE BY REASON OF INJURY OR DEATH OF ANY**

**PERSON, OR FOR LOSS OF, DAMAGE TO OR LOSS OF USE OF ANY PROPERTY. SUCH INDEMNITY WILL APPLY WHETHER THE CLAIMS, SUITS, LOSSES, DAMAGES, CAUSES OF ACTION OR LIABILITY ARISE IN PART FROM THE NEGLIGENCE OF THE CITY OF ARLINGTON OR ANY OF ITS OFFICERS, OFFICIALS, AGENTS, EMPLOYEES AND INVITEES IN BOTH THEIR PUBLIC AND PRIVATE CAPACITIES WHETHER SUCH NEGLIGENCE IS CONTRACTUAL COMPARATIVE NEGLIGENCE, CONCURRENT NEGLIGENCE, JOINT NEGLIGENCE, GROSS NEGLIGENCE, ACTIVE NEGLIGENCE, PASSIVE NEGLIGENCE OR ANY OTHER FORM OF NEGLIGENCE. (Amend Ord 04-004, 1/13/04)**

**Section 4.16 Permits for Demolition or Relocation**

Upon receiving an application for a permit to demolish or relocate a building or structure from a person or entity other than a state, city, county or federal government fee simple owner, the Building Official shall determine whether the building or structure is fifty (50) years old or older, or is situated in a Landmark Preservation Overlay ("LP") Zoning District. If the building or structure is fifty (50) years old or older, or the age of the building cannot be ascertained, the Building Official shall notify the applicant of such fact, and follow the procedures set out in Subsection A, below.

If the building or structure is situated in a "LP" Overlay District the Building Official shall notify the applicant of such fact, and follow the procedures set out in Subsection B, below. If the building or structure is less than fifty (50) years old and is not zoned with a "LP" Overlay suffix, the Building Official shall issue a demolition permit if all other requirements of the Code are met.

A. Buildings or Structures that are Fifty (50) Years Old or Older, and Buildings or Structures of Unknown Age

If the building or structure is fifty (50) years old or older, or the age of the building cannot be ascertained, the Building Official shall inform the applicant that the Landmark Preservation Commission or City Council must issue a Certificate of Demolition or Relocation, or the Municipal Court must issue an order before the Building Official may issue the requested permit. The Building Official shall direct the applicant to complete an Application for a Certificate of Demolition and Relocation for filing with the Landmark Preservation Commission, and forward the application to the Landmark Preservation Commission for its review and consideration.

Exception: Compliance with this section is not required upon receipt of an application for demolition or relocation for a structure that has been previously reviewed by the Landmark Preservation Commission in accordance with this chapter.

1. Automatic Stay of Thirty (30) Days. Demolition or relocation of the building or structure shall be automatically stayed for a period of up to thirty (30) days from the date of application to allow the Landmark Preservation Commission an opportunity to determine whether the building or structure is historically significant.
  - a. If the building or structure is determined to be historically significant the Landmark Preservation Commission shall provide proper notice and hold a public hearing on the permit application.
  - b. If the building or structure is determined not to be historically significant the Landmark Preservation Commission shall so notify the applicant and the Building Official as soon as is reasonably practicable.
2. Public Hearing. Within thirty (30) days of the receipt of a completed application for a Certificate of Demolition or Relocation, the Landmark Preservation Commission shall hold a public hearing. Public notice of such hearing setting forth the date, time and place scheduled for such hearing and the purpose thereof shall be published in a newspaper one time at least seven (7) days prior to the date scheduled for such hearing.
3. Certificate Deemed Issued by Lack of Action. If the Landmark Preservation Commission takes no action within thirty (30) days of receipt of the completed application, a Certificate of Demolition or Relocation shall be deemed issued by the Landmark Preservation Commission.
4. Review. In evaluating a request for a Certificate of Demolition or Relocation, the Landmark Preservation Commission shall consider the following:
  - a. the architectural, cultural, or historical significance of the building or structure;
  - b. the age of the building or structure;

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- c. the state of repair of the building or structure in question, and the reasonableness of the cost of restoration and repair;
  - d. additions, alterations, changes, modifications and updates to the exterior architectural features of the building or structure that would disqualify it from consideration for registration on the National Register of Historic Places;
  - e. the impact, if any, that delaying the demolition or relocation of the building or structure will have;
  - f. the contribution, if any, the building or structure makes to a previously designated and recognized historic district and the owner's or any predecessor owner's involvement in the formation or creation of such a district;
  - g. the willingness of the applicant to donate or sell the building or structure to a third party;
  - h. the potential usefulness or adaptive reuse of the building or structure, including economic usefulness;
  - i. the potential market or demand for such a building or structure in its current condition and location;
  - j. the purpose that would be served in preserving the building or structure; and,
  - k. all other factors it finds necessary and appropriate to carry out the intent of this ordinance.
5. Demolition or Relocation Appropriate. If the Landmark Preservation Commission determines that the building or structure should be demolished or removed, the Building Official shall issue a demolition permit if all other requirements of the Code are met.
6. Demolition or Relocation Inappropriate. If the Landmark Preservation Commission determines that the building or structure should not be demolished, the Landmark Preservation Commission may extend the automatic stay for a period of up to thirty (30) additional days. The automatic stay and any additional stay imposed by the Landmark

Preservation Commission shall not exceed a total of sixty (60) days from the date application for a permit to demolish or relocate a building or structure was filed.

7. Stay Extended by City Council. Prior to the expiration of the stay period imposed by the Landmark Preservation Commission, the Landmark Preservation Commission may issue a recommendation to the City Council requesting that the stay be extended. After notice to the applicant and a public hearing, the City Council may extend the stay upon a finding that there are reasonable grounds for preservation as well as a reasonable expectation of preserving the building or structure. It shall be the responsibility of the Landmark Preservation Commission and any other proponent of extending the stay on a demolition permit application to demonstrate to the City Council's satisfaction that there exist reasonable grounds for preservation as well as a reasonable expectation of preserving the building or structure.

The City Council may extend the stay on one or more occasions, after notice to the applicant and a public hearing, in such increments of time as the City Council may determine reasonable. Any extension of the stay on a demolition permit or combination of extensions imposed by the City Council under this provision shall not exceed a cumulative total of ninety (90) days in duration.

In instances where the City Council imposes an extension of the stay for a time period of less than ninety (90) days, the Landmark Preservation Commission may request additional extensions of the stay up to a cumulative total of ninety (90) days from the City Council. Any such request must be submitted to, and acted upon by, the City Council prior to the expiration of any stay period previously imposed by the City Council. The Landmark Preservation Commission shall report to City Council concerning its efforts to preserve the building or structure as a prerequisite to the extension of any stay imposed by the City Council.

In no event shall the stay on a demolition permit and any extensions thereto exceed a total of one hundred fifty (150) days from the date the application for a permit to demolish or relocate a building or structure was filed. If City Council takes no action on the Landmark Preservation Commission's request for an extension within the original stay period or any subsequent extension thereof, a Certificate of Demolition or Relocation shall be deemed issued at the expiration of such stay period.

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8. Appeals. Appeals from a decision of the Landmark Preservation Commission shall be to the City Council. Such appeals must be filed with the Historic Preservation Officer within ten (10) days after the complained of decision is made by the Landmark Commission. Such appeals shall be heard by City Council on the next available agenda consistent with the requirements of the Texas Open Meetings Act and with due consideration for the City Council's schedule of business.
9. Permit Issuance. At the end of the stay period and any extension thereof, or upon the City Council's granting an appeal to the Landmark Preservation Commission's determination the Building Official shall issue a demolition permit if all other requirements of the Code are met.

#### B. Buildings or Structures in a Landmark Preservation Overlay ("LP") Zoning District

If the building or structure is situated in a "LP" Overlay District the Building Official shall inform the applicant that the Landmark Preservation Commission or City Council must issue a Certificate of Demolition or Relocation, or the Municipal Court must issue an order before the Building Official may issue the requested permit. The Building Official shall direct the applicant to complete an Application for a Certificate of Demolition and Relocation for filing with the Landmark Preservation Commission, and forward the application to the Landmark Preservation Commission for its review and consideration.

The Landmark Preservation Commission or City Council must issue a Certificate of Demolition or Relocation, or the Municipal Court must issue an order before the Building Official may issue a permit to demolish or relocate a building or structure situated in a "LP" Overlay District. The Certificate of Demolition or Relocation process, which must be followed, is set out in Section 9-600 of the Zoning Chapter of the Code of the City of Arlington, Texas. In addition to obtaining a Certificate of Demolition or Relocation from the Landmark Preservation Commission or City Council the applicant must meet all other requirements of the Code before the Building Official shall issue a demolition permit.

#### C. Buildings or Structures that are NOT Located in a Landmark Preservation Overlay ("LP") Zoning District and which are Less Than Fifty (50) Years Old

If the age of a building or structure can be ascertained and the building is less than fifty (50) years old and the building or structure is not zoned with a "LP" Overlay suffix the Building Official shall issue a demolition permit if all other requirements of the Code are met. (Amend Ord 04-004, 1/13/04)

**ARTICLE V**  
**REQUIRED FEES**

**Section 5.01 Standards**

- A. The various requirements contained in this Building Code for the payment of fees shall correspond to the methods of calculation and restrictions contained herein and shall be calculated in accordance with such schedules as may from time to time be set by resolution of the City Council.
- B. The following standards shall apply:
- (1) Calculations for area (square footage) shall be on a gross basis, measured from the exterior face of exterior walls;
  - (2) Final permit fee calculations shall be carried to the nearest whole dollar. Fractions greater than forty-nine one hundredths (0.49) shall be extended upward;
  - (3) The Building Official shall designate the applicable method of calculation for occupancies;
  - (4) The Building Official may approve a mixed calculation method when differing occupancy descriptions are applied to various areas within a single structure;
  - (5) "Valuation" shall be the estimate of the total market value of a proposed construction project, including the contractor's overhead and profit and other associated owner's costs, but excluding raw land costs; and
  - (6) When replacement of a contractor occurs during a project, the Building Official may prorate the amount of the building permit fee for the new contractor based on said Building Official's determination of the percentage of work remaining.
  - (7) Except where specifically listed in the resolution adopting fees, no building permit fee shall be less than the minimum required plans examining fee. (Amend Ord 89-76, 6/27/89)

## ARTICLE VI

### MANUFACTURED HOUSING AND INDUSTRIALIZED HOUSING AND BUILDINGS

**Section 6.01 Definitions.** The following terms shall have the meanings as set forth in this section:

**“Building Official”** shall mean the legally designated inspection authority of the City or his/her authorized representative.

**“City”** shall mean City of Arlington, Tarrant County, Texas.

**“HUD-code manufactured home”** shall mean a structure constructed on or after June 15, 1976, according to the rules of the United States Department of Housing and Urban Development; built on a permanent chassis; designed for use as a dwelling with or without a permanent foundation when the structure is connected to the required utilities; transportable in one or more sections; and in the traveling mode, at least eight body feet in width or at least 40 body feet in length or, when erected on site, at least 320 square feet.

HUD-code manufactured home includes the plumbing, heating, air conditioning, and electrical systems of the home.

HUD-code manufactured home does not include a recreational vehicle as defined by 24 C.F.R. Section 3282.8(g).

**“Industrialized Housing”** shall mean a residential structure that is designed for the occupancy of one or more families; constructed in one or more modules or constructed using one or more modular components built at a location other than the permanent site; and designed to be used as a permanent residential structure when the module or the modular component is transported to the permanent site and erected or installed on a permanent foundation system.

Industrialized housing includes the structure's plumbing, heating, air conditioning, and electrical systems.

Industrialized housing does not include a residential structure that exceeds three stories or 49 feet in height; housing constructed of a sectional or panelized system that does not use a modular component; or a ready-built home constructed in a manner in which the

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entire living area is contained in a single unit or section at a temporary location for the purpose of selling and moving the home to another location.

**“Industrialized Building”** shall mean a commercial structure that is constructed in one or more modules or constructed using one or more modular components built at a location other than the commercial site; and designed to be used as a commercial building when the module or the modular component is transported to the commercial site and erected or installed.

An industrialized building includes the structure's plumbing, heating, air conditioning, and electrical systems.

An industrialized building includes a permanent commercial structure and a commercial structure designed to be transported from one commercial site to another commercial site but does not include a commercial structure that exceeds three stories or 49 feet in height; or a commercial building or structure that is installed in a manner other than on a permanent foundation; and either not open to the public; or less than 1,500 square feet in total area and used other than as a school or a place of religious worship.

**“Manufactured home”** or **“manufactured housing”** shall mean a HUD-code manufactured home or a mobile home.

**“Mobile home”** shall mean a structure constructed before June 15, 1976; built on a permanent chassis; designed for use as a dwelling with or without a permanent foundation when the structure is connected to the required utilities; transportable in one or more sections; and in the traveling mode, at least eight body feet in width or at least 40 body feet in length or, when erected on site, at least 320 square feet.

Mobile home includes the plumbing, heating, air conditioning, and electrical systems of the home.

### **Section 6.02 Permits for Industrialized Housing and Buildings**

To erect or install industrialized housing or industrialized building and before any construction may commence a building permit must first be issued in accordance with the provisions of Article IV of this chapter. In addition to the permit requirements of Article IV, the building permit application must include:

1. Two (2) complete sets of designs, plans, and specifications bearing the Texas Industrialized Building Code Council's stamp of approval for each installation of industrialized housing or building.

2. Plans that demonstrate that the industrialized building or industrialized housing be securely fixed to a permanent foundation.
3. Permit applications for single family or duplex Industrialized Housing must include:
  - a. Documentation verifying that industrialized housing must have a value equal to or greater than the median taxable value for each single-family dwelling located within 500 feet of the lot on which the industrialized housing is proposed to be located, as determined by the most recent certified tax appraisal roll for Tarrant county;
  - b. Plans that demonstrate the exterior siding, roofing, roofing pitch, foundation fascia, and fenestration is compatible with the single-family dwellings located within 500 feet of the lot on which the industrialized housing is proposed to be located;
  - c. Plans that demonstrate compliance with the residential design standards, building setbacks, side and rear yard offsets, architectural landscaping, square footage, and other zoning and site requirements applicable to one- and two-family dwellings; and
  - d. For purposes of subsection “a” above, “value” means the taxable value of the industrialized housing and the lot after installation of the housing.
4. The installation of an industrialized building or industrialized housing must demonstrate compliance with the all land use and zoning requirements, commercial design standards, building setback requirements, side and rear yard requirements, and all elements of *Commercial Site Plan* as set forth in Article IV of this chapter.
5. Each industrialized modular section or modular component must bear a decal or insignia as approved by the Texas Industrialized Building Code Council.

**Section 6.03 Permits for Manufactured Housing, HUD Code Manufactured Homes and Mobile Homes**

- A. The installation of a mobile home for use as a dwelling is prohibited. The prohibition is prospective and does not apply to a mobile home previously legally permitted by and used as a dwelling in the City.
- B. Where a manufactured home occupies a lot, the owner of the manufactured home may remove the manufactured home from its location and place another manufactured home on the same property. The replacement manufactured home must be a newer manufactured home and must be at least as large in living space as the prior manufactured home. This replacement is limited to a one time replacement. Not more than twelve months shall lapse between the time of the removal and the time of replacement. It shall be the owner's responsibility to prove the removal date and the age and size of the removed manufactured home.
- C. An owner shall be allowed to replace a manufactured home that has been destroyed as a result of a fire or natural disaster. Not more than twelve months shall lapse between the time of the removal and the replacement. It shall be the owner's responsibility to prove the date of the fire or natural disaster that destroyed the manufactured home.
- D. An owner shall be granted permission to replace a mobile home by a HUD-code manufactured home. This replacement is limited to a one time replacement. Not more than twelve months shall lapse between the time of the removal and the time of replacement. It shall be the owner's responsibility to prove the removal date and the age of the removed mobile home.
- E. To install, replace, place or set up, any manufactured housing and before any related site construction may commence a "Manufactured Home Site Placement Review" must first be issued in accordance with the permitting provisions of Article IV of this chapter. A "Manufactured Home Site Placement Permit" application to replace or place manufactured housing for use as a dwelling shall be considered to be granted unless the application is denied in writing accompanied by the reasons for the denial not later than the 45<sup>th</sup> day after the completed application is received.

An application for "Manufactured Home Site Placement Permit" to place manufactured housing on any site is subject to the following:

- 1. The scope of the "Manufactured Home Site Placement Permit" shall include:

- a. General site preparation work for other than the localized site and foundation preparation for the manufactured housing unit,
  - b. Site electrical work and connection to the manufactured housing unit,
  - c. Installation of air conditioning equipment at the site and connection to the manufactured housing unit,
  - d. The connection to water and sewer services at the site and connection to the manufactured housing unit,
  - e. The installation of skirting around and connection to the manufactured housing unit if that cost is excluded from the installers cost,
  - f. The setbacks from property lines,
  - g. The surface improvement of the drive approaches and internal driveways,
  - h. The setback from any future rights of way based on the thoroughfare development plan,
  - i. The location of the manufactured housing in regard to easements, and
  - j. The location of the manufactured in regard to flood plain hazards.
2. The scope of the “Manufactured Home Site Placement Permit” shall not include the installation of the manufactured housing unit which includes the immediate site preparation of the manufactured housing unit(s), the foundation system, the joining/connection of the manufactured housing units, placement of the manufactured home on the foundation, and the installation of steps or legally compliant ramps to any exterior door that will be 12 inches or more above ground level.
  3. The transporting and installation of the manufactured housing unit(s) must be performed by a retailer or installer that is licensed by the Texas Department of Housing & Community Affairs, Manufacture Housing Division.

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4. The “Manufactured Home Site Placement Permit” may only be issued to a retailer or installer that is licensed by the Texas Department of Housing & Community Affairs, Manufacture Housing Division.
5. Upon application for the “Manufactured Home Site Placement Permit” the owner must pay a fee as established by resolution of the City Council.
6. The placement or replacement of the manufactured home is subject to inspections as required by the building official.

#### **Section 6.04 Electronic documents required**

Final plans or other documents that will be archived must be submitted in an electronic format specified by the Director of Community Development and Planning (“CDP Director”) as a condition to issuance of any type of permit, approval, or other action related to the final plans or documents. The City may provide an electronic conversion service for a fee in the amount set forth by City Council resolution. The CDP Director shall provide a schedule indicating which documents must be provided electronically, at which point during the approval process, and other information as necessary to implement an electronic archiving program. (Amend Ord 12-020, 4/24/12)

**ARTICLE VII**

**SIGNS**

**Section 7.01 Permits Required**

- A. No sign shall hereafter be erected, constructed, altered or maintained except as provided in this Building Code until a permit for the same has been issued by the Building Official and a permit fee paid as hereinafter provided.
- B. No sign permit shall be issued and no sign erected unless and until the applicant has complied with the requirements of registration described in Article IV of this Chapter and has paid the appropriate fee therefor.

**Section 7.02 Identification of Signs**

Every sign hereafter erected, constructed or maintained for which a permit is required shall be plainly marked with the name of the person, firm or corporation erecting and maintaining such sign. (Amend Ord 96-93, 7/2/96)

**Section 7.03 Unsafe Signs**

Should any sign become insecure or in danger of falling or otherwise become unsafe in the opinion of the Building Official, the owner thereof or the person or firm maintaining the same shall, upon written notice from said Building Official, immediately in the case of immediate danger and in any case within ten (10) days of the date of such notice, either secure the same in a manner to be approved by the Building Official in conformity with the provisions of this Building Code or remove such sign. If such order is not complied with within ten (10) days, the Building Official shall remove such sign at the expense of the owner or lessee thereof.

**Section 7.04 Maintenance**

All signs for which a permit is required, together with all their supports, braces, guys and anchors, shall be kept in good repair. The Building Official may order the removal of any sign that is not maintained in accordance with the

provisions of this Section. Such removal shall be accomplished at the expense of the owner or lessee. (Amend Ord 96-93, 7/2/96)

**Section 7.05 Unlawful Signs**

- A. A sign, which is installed, erected or constructed in violation of any Chapter of the Code of the City of Arlington, is hereby declared to be a nuisance. (Amend Ord 98-141, 10/27/98)
- B. The Building Official may abate an unlawful sign in accordance with the procedures set forth in Sections 4.03 and 4.04 of the "Nuisances" Chapter.
- C. The Building Official may remove and dispose of any sign which is in violation of Subsections 7.06(E) or (F), without prior notice to the owner of such sign. (Amend Ord 94-03, 1/4/94)

**Section 7.06 Location Restrictions**

Except where authorized elsewhere in the City Code, no sign shall be erected, constructed or maintained: (Amend Ord 96-93, 7/2/96)

- A. In violation of any provision of the "Zoning" Chapter of the Code of the City of Arlington, or any other Chapter of said Code which pertains to the sign's location or manner of construction;
- B. So as to obstruct any fire escape, window, door or other opening used as a means of egress or as legally required ventilation;
- C. On or attached to a fire escape;
- D. On or attached to any door or window casing;
- E. On or over any street, alley, park, light standard, utility pole, fire hydrant or other object or structure situated on public property: provided, however, that this provision shall not be construed as prohibiting the erection of signs by the City of Arlington for the purpose of identification, direction or information concerning traffic control;

- F. With any structural support thereof on or within any street right-of-way, parkway, alley, public sidewalk, park or other public property; or
- G. So as to project into any area within twenty-four inches (24") of the back of the street curb or edge of a roadway.

**Section 7.07    Structural Requirements**

- A. Design and Stress Diagrams Required. Before a sign permit shall be granted, the applicant therefor shall submit to the Building Official a design and stress diagram or plan containing information as to the type, size, shape, location, construction and materials of the proposed sign, and such other pertinent information as the Building Official may deem necessary to determine that such sign complies with this Building Code and all other pertinent laws. Final plans or other documents that will be archived must be submitted in an electronic format specified by the Director of Community Development and Planning ("CDP Director") as a condition to issuance of any type of permit, approval, or other action related to the final plans or documents. The City may provide an electronic conversion service for a fee in the amount set forth by City Council resolution. The CDP Director shall provide a schedule indicating which documents must be provided electronically, at which point during the approval process, and other information as necessary to implement an electronic archiving program. (Amend Ord 10-009, 1/12/10)
- B. Wind Pressure. In the design and erection of all signs, the effect of wind shall be carefully considered. All signs shall be so constructed as to withstand wind pressure as specified in I.B.C., Section 1609.
- C. Working Stresses.
  - (1) In any sign construction, the allowable working stresses shall conform to the requirements of I.B.C., Section 1604.
  - (2) The allowable working stresses for steel and wood shall be calculated in accordance with the pro-

visions of I.B.C., Sections 2204 and 2304 - 2306, respectively.

- (3) The working strength of chains, cables, guys or steel rods shall not exceed one-fifth (1/5) of the ultimate strength of such chains, cables, guys or steel rods. (Amend Ord 02-020, 2/5/02)

**Section 7.08 Use of Plastic Materials**

Other provisions of this Building Code notwithstanding, plastic materials which burn at a rate no faster than 2.5 inches per minute (64mm/s) when tested in accordance with ASTM D 635 shall be deemed approved plastics and may be used as the display surface material and for the letters, decorations and facings on signs and their structures. (Amend Ord 02-020, 2/5/02)

**Section 7.09 Presumption - Violations In or On Public Property**

- A. If any sign of any nature is erected, constructed or maintained in violation of Section 7.06 (E) or (F), including but not limited to garage sales, neighborhood sales, moving services, baby-sitting services, house-keeping services, lawn care services or any other type of service or sales:
  1. When the name of any person appears on such a sign, it shall be prima facie evidence that the person so named is responsible for the offense of erecting, constructing or maintaining said sign, and that person shall be guilty of a misdemeanor;
  2. When any address appears on such sign, it shall be prima facie evidence that the record property owner at the address so specified is responsible for the offense of erecting, constructing or maintaining said sign, and that person shall be guilty of a misdemeanor; and
  3. In the event that such a sign contains no identifying information other than a telephone number, such information shall be prima facie evidence that the record property owner at the address so specified is responsible for the offense of erect-

ing, constructing or maintaining said sign, and that person shall be guilty of a misdemeanor.

- B. Proof establishing a prima facie case based on name, address or telephone number may be made as follows:
1. Name - An authenticated photograph of the sign showing the name of the person allegedly responsible, or the sign itself.
  2. Address - A certified copy of that section of the most recent tax roll which shows the name and address of the record property owner and an authenticated photograph of the sign or the sign itself.
  3. Telephone Number - An authenticated photograph of the sign or the sign itself, showing the telephone number, and a copy of the most recent telephone directory showing the listing, or a letter or other document from the telephone company showing the listed person and address at that telephone number. (Amend Ord 94-03, 1/4/94)

**Section 7.10 Temporary Signs Near Polling Places**

- A. No temporary sign shall be placed, erected, constructed or maintained at a size greater than six (6) square feet in the area within the property lines of the property in which a polling place is located during the voting period, except as otherwise provided by state law. "Voting period" means the period beginning when a poll opens for early voting and election day voting and ending when the poll closes or the last voter has voted, whichever is later. (Amend Ord 08-090, 9/30/08)
- B. Signs shall not be located in City right-of-way.
- C. Temporary signs need not comply with the provisions of Section 7.07 of this Chapter. (Amend Ord 95-18, 2/14/95)

## ARTICLE VIII

### SIDEWALKS, CURBS AND DRIVEWAYS

#### **Section 8.01 Registration**

Registration shall be required of anyone in the business of laying, constructing, building, rebuilding or repairing any length of sidewalk, curb, street gutter or driveway on any public right-of-way within the City of Arlington unless such work is done pursuant to a contract executed with said City. An applicant for registration shall comply with the requirements for registration as described in Section 4.01 above.

#### **Section 8.02 Permits**

- A. Permit Required. No work described in Section 8.01 above shall proceed in any measure until a permit to do such work has been issued by the Building Official, unless such work is done pursuant to a contract executed with the City of Arlington.
- B. To Whom Issued. A permit for such work shall only be issued to a person, firm or corporation duly registered for that work as provided in Section 8.01 above, except as approved by the Director of Capital Improvements.
- C. Permit Application. An application for a permit to perform the work described in Section 8.01 above shall be submitted to the Building Official. The application shall include the required information set out in Article IV above.
- D. Permit Issued. When, in the opinion of the Building Official, the data submitted in the application for the permit sufficiently defines the proposed work, and when the appropriate fee has been paid, the permit shall be issued.

#### **Section 8.03 Performance**

All work permitted under this Article shall be inspected for approval by the Building Official, and it shall be an offense for any permittee to fail to contact said Building Official for such inspection upon completion of the work. All such work shall conform to all applicable provisions of the Code of the City of Arlington. (Amend Ord 89-76, 6/27/89)

**ARTICLE IX**

**FENCES**

**Section 9.01 Barbed Wire Fence**

It shall be unlawful for any person, firm, corporation or agent or employee thereof to build, erect, keep, maintain, permit or allow to be built, erected, kept or maintained, any barbed or razor wire fence on or around any property or premises owned or controlled by such person, firm or corporation within the corporate limits of the City of Arlington: provided, however, that any fence, including topgrade construction barbed or razor wire, the lowest strand of which is not less than six and one-half feet (6½') above the ground level, shall be permitted. (Amend Ord 96-93, 7/2/96)

**Section 9.02 Enclosure of Swimming Pools, Spas and Hot Tubs**

- A. The following are required to comply with the most current edition of the Pool Yard Enclosure Requirements, Texas Health and Safety Code:
1. A pool owned, controlled, or maintained by the owner of a multi-unit rental complex or by a property owners association; and
  2. Doors and windows of rental dwellings opening into the pool of a multi-unit rental complex or condominium, cooperative, or a townhome project.
- B. Construction Requirements For Existing Swimming Pools
1. Every outdoor swimming pool, spa and hot tub shall be completely enclosed by a fence or wall at least forty-eight inches (48") above grade measured on the side of the fence or wall which faces away from the swimming pool.
  2. Every fence or wall required by this Section shall be constructed so that it contains no openings, holes or gaps, except doors or gates, which will allow the passage of a sphere four inches (4") in diameter.

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3. Every door or gate that forms a part of a fence or wall required by this Section shall be constructed so that it contains no openings, holes or gaps which will allow the passage of a sphere four inches (4") in diameter.
4. A building may be used as part of a fence or wall required by this Section. No **door** of such building shall open directly into the enclosed area except as herein provided.
5. It is an exception to Subsection (A)(4) that the door:
  - a. Provides the only access into a nonhabitable storage or equipment room or building; or
  - b. Is to a single-family dwelling and is in compliance with Subsection (B).

C. Self-closing and Self-latching Devices on Existing Swimming Pools

1. All gates or doors opening into the enclosed area shall be equipped with a self-closing and self-latching device for keeping the gate or door securely closed at all times when not in actual use.
2. The application of this subsection shall not include sliding glass doors.
3. It is an exception to this subsection that the door or gate provides the only access into a nonhabitable storage or equipment room or building.

D. Application of Requirements

1. The requirements of Subsections (B) or (C) shall be applicable to all outdoor swimming pools, spas and hot tubs constructed or installed prior to the adoption of the 1991 U.B.C. in Article I of this Chapter and which have a depth capacity of eighteen inches (18") or more of fluid at any point, whether actually containing a fluid or empty.
2. Outdoor swimming pools, spas and hot tubs, whose construction or installation was completed prior

to May 1, 1990, and which are located at occupancies other than hotels, motels, lodges and apartment houses, shall not be subject to the provisions of this ordinance requiring doors to a building that forms part of an enclosure to be equipped with self-closing and self-latching devices.

E. Modifications

The Building Code Board of Appeals may make modifications in individual cases, upon a showing of good cause, with respect to the height, nature of location of the fence, wall, gates or latches, or the necessity therefor, provided the protection as sought hereunder or by Appendix G of the 2000 I.R.C. is not reduced thereby. Said Board may permit other protection devices or structures to be used so long as the degree of protection afforded by the substitute devices or structures is not less than the protection afforded by the substitute fence, gates and latch described herein, or in Appendix G of the 2000 I.R.C. as applicable. (Amend Ord 02-020, 2/5/02)

F. Definition

The terms "swimming pool", "spa" and "hot tub" as used herein, shall mean an artificial or semi-artificial receptacle or container designed to contain fluid, whether actually containing a fluid or not, which is either temporarily or permanently located outdoors, and is used or intended to be used for public, semi-public or private human use involving submersion of all or part of the body, whether or not a fee is paid for such use. Such use may include, but is not limited to, swimming, wading, soaking, floating or recreational bathing by any number of persons. These terms do not apply to a receptacle or container that is located outdoors and is not used or intended to be used for public, semi-public or private human use involving submersion of all or part of the body, such as fountains and reflections pools.

G. Offense

1. It is an offense if a person owns, occupies, maintains or is in charge of premises that are in violation of this Section.

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2. There shall be no requirement of a culpable mental state for a violation of this Section or Appendix G, 2000 I.R.C. (Amend Ord 02-020, 2/5/02)

**ARTICLE X**

**EMERGENCY LOCATOR DIRECTORY**

**Section 10.01 Purpose**

The provisions of this Article are enacted for the purpose of avoiding delay to police, fire, ambulance and other emergency personnel in locating and responding to calls at individual living units within large multi-unit residential complexes in the City of Arlington, in order to insure the health, safety, morals and general welfare of the public.

**Section 10.02 Filing of Information Required**

The owner, manager or person in control of any apartment or other building or building complex designed or used for an occupancy of ten (10) or more dwelling units at the same location shall file in the office of the Building Official the information required in Section 10.04 below, which shall be compiled and maintained by the Building Official in an emergency locator directory. Allowing the continued use and operation of said premises after the time specified in Section 10.03 below has elapsed without the filing or updating of such information shall be an offense.

**Section 10.03 Time of Filing**

- A. Existing Structures. The owner, manager or person in control of any apartment or other building or building complex containing ten (10) or more dwelling units at the same location which are in existence and occupied under a valid Certificate of Occupancy on the effective date of this Article shall comply with the terms of this Article within ninety (90) days after said effective date.
- B. New Construction, Alterations or Additions. The owner, manager or person in control of any apartment or other building or building complex which may, after the effective date of this Article, be constructed, altered, enlarged or expanded so as to contain ten (10) or more dwelling units at the same location shall comply with the terms of this Article as a condition precedent to approval following the final inspection

and/or issuance of a Certificate of Occupancy by the Building Official for all or any part of said premises. Compliance with this Article shall be deemed to mean the filing of the information herein required with regard to all dwelling units at the same location, regardless of whether all such units constitute the subject of the final inspection or Certificate of Occupancy being sought.

- C. Changes in Information. In the event that any of the information required by Section 10.04 below changes or is rendered incomplete or inaccurate, it shall be the duty of the owner, manager or person in control of the premises involved to submit to the Building Official a written statement indicating the correct information in order that the emergency locator directory shall be maintained factually correct at all times. Failure to update said information within ten (10) days of the change shall be an offense.

**Section 10.04 Information Required**

- A. The information required to be filed with the Building Official by Section 10.02 above shall include a site map drawn to a scale designated by the Building Official showing the designation and location of the following: buildings; the number or letter designation of said buildings, if any; internal street and driveway patterns; parking areas; access ways to interior courts; exterior stairways; dwelling units and their exterior doorways; the number or letter designation of said units; utility controls; and such other pertinent information as the Building Official may deem necessary. The Building Official shall provide appropriate forms for the compiling of said information and shall prescribe the manner of submitting the same.
- B. Final plans or other documents that will be archived must be submitted in an electronic format specified by the Director of Community Development and Planning ("CDP Director") as a condition to issuance of any type of permit, approval, or other action related to the final plans or documents. The City may provide an electronic conversion service for a fee in the amount set forth by City Council resolution. The CDP Director shall provide a schedule indicating which documents must be provided electronically, at which point during the approval process, and other information as necessary to implement an electronic archiving program.  
(Amend Ord 10-009, 1/12/10)

## ARTICLE XI

### TEMPORARY OCCUPANCY OF STREETS

#### Section 11.01 General

A. Permit. Any person desiring to temporarily occupy any portion of any public street, alley, sidewalk or public right-of-way within the City of Arlington for:

- (1) the purpose of placing thereon material or debris for or from building operations;
- (2) any excavation of any area under such street, alley or sidewalk; or
- (3) any purpose whatsoever connected with the erection, removal, alteration or repair of any building or other structure;

shall apply to the Building Official for a permit under Article IV above for such temporary occupation. Such permit shall not be issued unless the applicant therefor shall have first presented a valid building permit issued by the Building Official for adjacent premises.

It shall be unlawful to occupy or obstruct any such street, alley, sidewalk or public right-of-way without such a permit conditioned that the permittee will: discharge all claims of every character arising from or occasioned by such occupancy, the construction or repair of such building or the making of such excavation; and discharge all judgments obtained, together with all costs attached thereto, against the City by reason of any such claim, injury or damage sustained.

Every person, firm or corporation carrying on any such excavation or building operation shall keep all streets, alleys, sidewalks and public rights-of-way adjacent to such excavations or building operations in a clean and orderly condition and free from obstructions not allowed by this Article during such operations. At the expiration of the time stipulated in the permit, the permittee shall have restored all such streets, alleys, sidewalks and public rights-of-way to as good condition as they were before the beginning of such operations.

B. Requisites of Permit. Permits for temporary street occupancy shall be issued by the Building Official, shall be in writing and shall be for such a period of time, not to exceed ninety (90) days, as the Building Official may deem expedient: provided, however, that such time may be extended by the Building Official based on evidence supporting a request for such extension. The Building Official may consult with other departments of the City of Arlington which may be affected by or interested in the permit, and shall specify in each permit issued the extent of street, side-

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walk, alley or public right-of-way allowed to be obstructed, the manner of barricade system that is to be provided and any reasonable restrictions deemed necessary by the Building Official. If refusing a permit application, the Building Official shall notify the applicant for the permit as to the reason the permit is not to be granted and such temporary occupancy not allowed.

- C. Fee. The appropriate fee for temporary occupancy set in accordance with Section 4.09 above shall be required along with submission of the permit application to the Building Official. (Amend Ord 89-76, 6/27/89)

**ARTICLE XII**

**SANITARY FACILITIES**

**Section 12.01 Sanitary Sewer Connection During Construction**

Adequate sanitary facilities for the convenience of all construction personnel shall be provided by the contractor during any construction performed in the City of Arlington. These facilities shall be kept in a clean and sanitary condition throughout the duration of the work. The temporary sanitary facilities shall be enclosed, screened, weatherproofed and connected to a sewer. Upon removal of the temporary facilities, the sewer connection shall be removed and suitably capped. (Amend Ord 96-93, 7/2/96)

**Section 12.02 Alternative Sanitary Facilities During Construction**

In lieu of connecting to a sewer, the temporary facility required by this Article may be a portable, enclosed, chemically treated, tank-tight unit as approved by the Building Official. (Amend Ord 89-76, 6/27/89)

**ARTICLE XIII**

**TEMPORARY OUTDOOR EVENTS**

**Section 13.01 Purpose**

The purpose of this Chapter is to promote the health, safety, and welfare of City of Arlington citizens and visitors by addressing issues that occur when private property is used for temporary outdoor events.

**Section 13.02 Definitions**

The following words, terms and phrases, when used in this Ordinance, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

***Administrator.*** The Building Official or other designee of the City Manager charged with the administration and enforcement of this Article.

***Amplified Sound.*** Music, speech or sound projected or transmitted by artificial means, including but not limited to amplifiers, loud speakers or any similar devices that emit sound distinctly discernible beyond the property line of the premises where the equipment is located.

***Appeal Officer.*** The Director of Community Development and Planning or other designee of the City Manager charged with hearing appeals related to the enforcement of this Article.

***Applicant.*** A person or its authorized agent that applies for a temporary outdoor event permit.

***Non-Seasonal Temporary Outdoor Event.*** A temporary outdoor event that occurs independently of a particular season of the calendar year, including but not limited to: events related to religious institutions, schools, or other non-profit organizations.

***Person.*** An individual, proprietorship, partnership, corporation, association, or other legal entity.

***Seasonal temporary outdoor event.*** A temporary outdoor event occurring at or dependent on a particular season or holiday

of the calendar year, including but not limited to: pumpkin stands, firewood sales, and Christmas tree lots.

***Temporary outdoor event.*** Any activity not located within a permanent structure involving amplified sound; erection of tents; or sales of merchandise, goods or food and beverage; or similar activity.

**Section 13.03 General Authority and Duty of the Administrator**

The Administrator shall implement and enforce this Chapter.

**Section 13.04 Permit Required**

- A. No applicant may direct, control or participate in the production of a temporary outdoor event unless a valid permit for the event has been issued as provided in this Article.
- B. No person may direct, control or participate in the production of temporary outdoor event in violation of the terms and conditions of a valid permit issued in accordance with this Article.
- C. Nothing contained herein shall be construed as relieving an applicant from duties or permits required by other provisions of the Code of the City of Arlington, including, but not limited to, ordinances regulating the sale of food and beverage or closure of streets and the obtaining of permits and payment of fees.

**Section 13.05 Application for Permit**

- A. A person desiring to hold a temporary outdoor event shall file a written permit application with the Administrator.
- B. The application must be filed at least forty-five (45) days before the day the temporary outdoor event is to be held. Failure to meet the filing requirement may result in denial of the application. This requirement may be waived by the Administrator if all other conditions of this Article are met.

- C. The Administrator may require submittal of the following:
1. The name, telephone numbers and address of the applicant and the names, addresses, and telephone numbers of all associates and employees of the applicant assisting in the promotion of the temporary outdoor event.
  2. A description and the address of the premises where the temporary outdoor event is to be held.
  3. The name and address of the owner of the premises where the temporary outdoor event is to be held and a letter of permission from the owner whereby the applicant is authorized to use the location.
  4. A letter from the owner(s) of the premises acknowledging responsibility for cleaning up the property and surrounding rights-of-way as may be applicable, including charges assessed by the City for expenses incurred by the City. A bond for clean up may be required by the City. The owner shall provide an address and telephone numbers where he or she may be contacted.
  5. The dates and times that the temporary outdoor event is to be held, including any setup or takedown time for tents, booths, tables, stages, bandstands, platforms or other temporary structures.
  6. The maximum number of persons that the applicant will allow to attend the temporary outdoor event and a statement showing how the applicant plans to control the number of persons in attendance at the temporary outdoor event.
  7. A detailed statement describing the applicant's preparations for the temporary outdoor event designed to comply with the minimum standards of sanitation and health protection measures required by V.T.C.A., Health and Safety Code, Chapter 341, to include but not be limited to restrooms, gratis drinking water and shade structures. In addition, provisions for emergency medical and health care services may be required by the City.

8. A detailed statement describing the applicant's preparations for the temporary outdoor event designed to comply with the standards for a Certificate of Occupancy and all other requirements of the applicable Chapters of the Code of the City of Arlington, including but not limited to the provisions of the "Fire Prevention" and "Zoning" Chapters of said Code.
  9. A complete listing of similar temporary outdoor events the applicant has received permits for in the past three (3) years, including the date, time, and location of each.
  10. Any other information to determine whether the event will jeopardize the health, safety, and welfare of City of Arlington citizens and visitors.
- D. The required filing fee set in accordance with Section 4.09 above must be submitted with the application. The fee shall be nonrefundable.

**Section 13.06 Application Review Procedure**

- A. The application for a permit under this Article shall be reviewed by the Administrator. Such application may also be reviewed by other departments of the City to check compliance with the laws and ordinances under their jurisdiction.
- B. Reviewing departments may make a written report to the Administrator. The report shall state whether the preparations described in the application, if carried out, would be sufficient to protect the community and the persons attending the temporary outdoor event from health dangers, public safety and traffic control hazards, and to avoid violations of V.T.C.A., Health and Safety Code, Chapter 341.

**Section 13.07 Conditions for Permit**

- A. The following conditions and restrictions shall apply to all temporary outdoor events:
  1. Temporary outdoor sale or distribution of merchandise, goods or food and beverage shall only

be conducted by the existing occupants of existing businesses on the property where the sales will be held. The merchandise, goods or food and beverage sold or distributed shall be limited to those items sold or distributed in the ordinary course of business at the location for which a Certificate of Occupancy has been issued.

2. The Administrator may impose restrictions on any activity that appears likely to create a risk of unreasonable harm to the public including the following: fires; fireworks; amplified sound; the use of alcoholic beverages; dancing; sports; the use of animals, equipment or vehicles; the number of persons to be present; or the location of any bandstand, platform, tent or stage.
3. If an event takes place on public property, including street right-of-way, the applicant shall carry a minimum of \$500,000 per occurrence in commercial general liability insurance naming the City of Arlington, their officers, agents, and employees as additional insured for claims occurring in City rights-of-way. The applicant shall also pay a reasonable deposit of Security or provide a bond for the repair of any damage to City of Arlington property, the cost of cleanup, or both when so determined by the City.
4. The applicant shall furnish additional sanitary and refuse facilities that might be reasonably necessary based on the use or activity for which the permit is being sought.
5. Any tents, booths, tables, stages, bandstands, platforms or other temporary structures must be set back from the street curb by a minimum of twenty (20) feet, and must be within fifty (50) feet of the business front facade.
6. The number of temporary outdoor events that can be held by one applicant is limited to eighteen (18) per calendar year. The Administrator may allow an applicant to host additional temporary outdoor events if the event complies with this Article and does not jeopardize the health, safety, and welfare of the public.

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- B. In addition to the requirements in Subsection (A) above, the following conditions and restrictions shall apply to all seasonal temporary outdoor events:
1. The duration of the permit shall be for a period not exceeding forty (40) days prior to the event and two days after the event.
  2. Tents, booths, tables, stages, bandstands, platforms or other temporary structures shall not be erected in any easements, fire lanes or required parking spaces.
- C. In addition to the requirements in Subsection (A) above, the following conditions and restrictions shall apply to all non-seasonal temporary outdoor events:
1. The duration of the permit shall be limited to seventy-two (72) consecutive hours.
  2. Tents, booths, tables, stages, bandstands, platforms or other temporary structures shall not be erected in any easements, fire lanes or required parking spaces.

**Section 13.08 Denial of Permit; Grounds; Revocation**

- A. Any application for a temporary outdoor event shall be granted to an applicant by the Administrator unless the Administrator finds that:
1. False or misleading information is contained in the application or required information is omitted;
  2. The applicant does not have sufficient financial backing or stability to carry out the preparations specified in the application or to insure the faithful performance of his agreements;
  3. The preparations specified in the application are insufficient to protect the community or the persons attending the event from health dangers or to avoid violations of V.T.C.A., Health and Safety Code, Chapter 341;
  4. The times and place for the temporary outdoor event create a substantial danger of traffic or

- pedestrian congestion and disruption of other lawful activities;
5. The preparations specified in the application are insufficient to limit the number of persons in attendance at the temporary outdoor event to the maximum number stated in the application;
  6. The applicant does not have adequate agreements with performers to insure with reasonable certainty that the persons advertised to perform would appear;
  7. The preparations specified in the application fail to meet the requirements for a Certificate of Occupancy and all other requirements of the applicable Chapters of the Code of the City of Arlington, including but not limited to the provisions of the "Fire Prevention" and "Zoning" Chapters of said Code;
  8. The temporary outdoor event would violate any applicable federal, state, or municipal law;
  9. The preparations fail to meet the conditions which the Administrator has required pursuant to Section 13.05 above; or
  10. The proposed temporary outdoor event would conflict with another event regulated by this article.
  11. The applicant has failed to pay past fees associated with an Outdoor Festival or temporary outdoor event.
  12. Within the previous twelve (12) months, the applicant violates a provision of this Article or any federal, state, or local laws and ordinances during a temporary outdoor event.
- B. After notice to the applicant, the Administrator or an official of the Police, Fire, or Environmental Health Departments may revoke the permit on a finding that the preparations for the temporary outdoor event will not be carried out as stated in the application or the conditions imposed by the permit will not be met.

**Section 13.09 Permit Denial or Revocation Hearing**

- A. Every denial or revocation of a permit under this Article shall be in writing and shall state the reason for such action. Said notice shall immediately be sent to the applicant/permittee by certified mail, or shall be personally delivered to such person.
- B. Any applicant/permittee may, within ten (10) business days after the date of the notice provided for in Subsection (A) above, submit to the Administrator a written request for a hearing to show cause as to why the permit should be granted or should not be revoked, as the case may be. Such request shall not stay the denial or revocation. A hearing shall be scheduled within ten (10) business days of such request and notice of the hearing shall be given to all affected parties.
- C. Following the hearing, the Administrator shall render a written decision granting or denying the application, or reinstating or revoking the permit, as the case may be.
- D. An appeal of the Administrator's decision in Subsection (C) above may be made in writing to the Appeal Officer within ten (10) business days of the date of said decision. A hearing shall be set within ten (10) business days of receipt of the request for appeal and notice of the hearing shall be given to all affected parties.
- E. Any decision of the Administrator under Subsection (C) above which is not appealed shall be final. Any person, firm or corporation aggrieved by a decision of the Appeal Officer may present to a court of record a petition, duly verified, setting forth that such decision is illegal in whole or in part, and specifying the grounds of the illegality. Unless such petition is filed with said court within ten (10) business days of the decision of the Appeal Officer, the decision shall become final.

**Section 13.10 Permit Posting**

Permits required by this Article shall be publicly posted in the area where the activity is conducted or produced, and shall be exhibited upon demand to any law

enforcement officer or City ordinance enforcement official. The posted permit shall have emergency contact information for the person(s) responsible for the operation of the temporary outdoor event.

**Section 13.11 Exception**

The provisions of this Article shall not apply if the location of the temporary outdoor event is either (a) one for which a Certificate of Occupancy has already been granted and/or a final inspection, as applicable, has already occurred if the event is held in an individual dwelling unit; or (b) a major sports complex, as defined in the "Zoning" Chapter of the Code of the City of Arlington or a (c) City Park as defined by the Parks Chapter of the Code of the City of Arlington.

(Amend Ord 11-001, 1/4/11)

ARTICLE XIV

OVERSIZE AND OVERWEIGHT VEHICLE PERMITS

Section 14.01 Application and Permit Requirements

- A. Any vehicle operated on a public street within the corporate limits of the City of Arlington which is required to have a permit under the provisions of Section 6.03 (C), (D) and (E) of the "Traffic" Chapter of the Code of the City of Arlington, other than one involved in moving buildings pursuant to Article III of this Chapter above, shall file an application with the Building Official containing the following:
1. The kind of equipment to be operated, with a complete description of the same and a statement as to its weight;
  2. The kind of commodity to be transported and a certificate as to its weight; and
  3. The street or streets over which the said equipment is to be operated, the date or dates and the approximate time of said operation and the number of trips to be made: provided, however, that when the nature, route, time or frequency of operation cannot be determined at the time the permit is issued, this provision may be waived by the Building Official.
- B. Any permit issued under this Article shall include the following information:
1. The name of the applicant, the date of the operation, a description of equipment to be operated and a description of the commodity to be transported;
  2. The signatures of the Building Official or an authorized representative and an authorized employee of the Transportation Department of the City of Arlington; (Amend Ord 96-93, 7/2/96)
  3. The time for which the permit is issued;

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4. The specified street or streets over which the equipment is to be operated, insofar as it can be determined at the time the permit is issued; and
  5. Any other pertinent information deemed necessary by the Building Official.
- C. The proper fee set in accordance with Section 4.09 above shall accompany each application for permit and shall be made in cash, by cashier or certified check or by postal money order. The fee shall be returned if the application is denied.

**ARTICLE XV**  
**NOISE LEVEL REDUCTIONS**

**Section 15.01 Aircraft Noise Zones**

For the purpose of this Article, certain sections of the City of Arlington are hereby declared to be zones subject to significant noise from aircraft. Airport Overlay Zones AP-2, AP-3 and AP-4 established in Section 10-1000 of the "Zoning" Chapter of the Code of the City of Arlington shall be designated as Noise Zones for the purpose of this Article. These Noise Zones include such territory or portions of said City as designated and shown in the Airport Overlay Zones on the Official Zoning Map of said City.

**Section 15.02 Certification of Plans**

- A. Prior to the issuance of a building permit for any structure or building within the Noise Zones established by Section 15.01 above, the Building Official shall determine the applicable noise level reduction required in Section 10-1000 of the "Zoning" Chapter of the Code of the City of Arlington. If the proposed use and location are not considered compatible without restrictions, the noise level reduction characteristics of the plans and specifications must be certified by an approved acoustical consultant as meeting the requirements of Section 10-1000 of the "Zoning" Chapter before the permit will be issued by the Building Official.
- B. The term "acoustical consultant" shall include any registered engineer or architect who is approved by the Building Official based on the demonstration of competence and credentials in the area of architectural and environmental acoustics.
- C. A building or structure which is located across a noise contour as shown on the Official Zoning Map of the City of Arlington shall be considered to be entirely within the most restrictive of the Noise Zones within which it is partly located. (Amend Ord 89-76, 6/27/89)

## ARTICLE XVI

### DANGEROUS BUILDINGS

#### **Section 16.01 Authority**

This article is adopted pursuant to the authority provided by Chapter 214 of the Texas Local Government Code, as amended. Chapter 214 of the Texas Local Government Code, as amended, is adopted as if set out word for word. In the event of conflict or inconsistency in the wording of state and local law, state law shall prevail unless city ordinances state a more stringent law or procedure authorized in accordance with city home rule authority and relevant law.

#### **Section 16.02 Definitions**

The following words as used in Articles XVI, XVII and XVIII shall be defined as stated below.

“Administrator” shall mean the City Manager appointed Department Administrator or their designees charged with the administration and enforcement of this Chapter.

“Building” shall mean any structure which is built for the support, shelter, or enclosure or partial enclosure of persons, animals, chattels, or movable property of any kind including pools.

“Hearing Authority” means the City's Municipal Court, a board or commission listed in the Administration Chapter of the City Code, or a person assigned the responsibility of conducting a hearing under this Chapter by the Administrator.

“Swimming Pool” or “Pool” shall be defined as referenced in the Health and Sanitation Chapters of the Arlington City Code of Ordinances. (Amend Ord 09-024, 5/5/09)

#### **Section 16.03 Dangerous Building Defined**

- A. Section 302 of the 1994 edition of the Uniform Code for the Abatement of Dangerous Buildings, as published by the International Conference of Building Officials, is hereby adopted but modified and amended by the following, so that Section 302, entitled "Dangerous Buildings," shall read as follows:

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Any building or structure which has defects or conditions described herein is a dangerous building, provided that such condition or defects exist to the extent that the life, health, property or safety of the public or its occupants are endangered:

1. When any door, aisle, passageway, stairway or other means of exit is not of sufficient width or size or is not so arranged as to provide safe and adequate means of exit in case of fire or panic;
2. When the walking surface of any aisle, passageway, stairway or other means of exit is warped, worn, loose, torn or otherwise unsafe so that it would not provide safe and adequate means of exit in case of fire or panic;
3. When the stress in any materials, member or portion thereof, due to all dead and live loads, is more than one and one half (1 1/2) times the working stress or stresses allowed in the Building Code for new buildings of similar structure, purpose or location;
4. When any portion has been damaged by fire, earthquake, wind, flood or by any other cause, to such an extent that the structural strength or stability thereof is materially less than it was before such catastrophe and is less than the minimum requirements of the Building Code for a newly constructed building of like area, height and occupancy;
5. When any portion or member or appurtenance is likely to fail, or to become detached or dislodged, or to collapse and thereby injure persons or damage property;
6. When any portion of the building, or when any member, appurtenance or ornamentation on its exterior is not of sufficient strength or stability, or is not anchored, attached or fastened in place so as to be capable of resisting a wind pressure of one half (1/2) of that specified in the Building Code for a newly constructed building of like area, height and occupancy, without exceeding the working stresses permitted in the Building Code for such buildings;
7. When any portion has wracked, warped, buckled or settled to such an extent that walls or other structural portions have materially less resistance to winds or earthquakes than is required in the case of similar new construction;
8. When the building or any portion thereof is likely to partially or completely collapse because of:

- a. Dilapidation, deterioration or decay;
  - b. Faulty construction;
  - c. The removal, movement or instability of any portion of the ground necessary for the purpose of supporting such building;
  - d. The deterioration, decay or inadequacy of its foundation; or
  - e. Any other cause;
9. When, for any reason, the building or any portion thereof is manifestly unsafe for the purpose for which it is being used;
  10. When the exterior walls or other vertical structural members list, lean or buckle to such an extent that a plumb line passing through the center of gravity does not fall inside the middle one third of the base;
  11. When the building, exclusive of the foundation, shows thirty-three percent (33%) or more damage or deterioration of its supporting member or members, or fifty percent (50%) damage or deterioration of its nonsupporting members, enclosing or outside walls or coverings;
  12. If the building was constructed or is maintained in violation of any specific requirement or prohibition applicable to such building provided by the Building Code, or of any law or ordinance of this state or City relating to the condition, location or structure of buildings;
  13. If the building has in any nonsupporting part, member or portion less than fifty percent (50%), or in any supporting part, member or portion less than sixty-six percent (66%) of the strength, fire-resisting qualities or characteristics, or weather-resisting qualities or characteristics required by law for a newly constructed building of like area, height and occupancy;
  14. If the building is used or intended to be used for dwelling purposes, and because of inadequate maintenance, dilapidation, decay, damage, faulty construction or arrangement, inadequate light, air or sanitation facilities, or otherwise, is determined by the Building Official or Administrator or an authorized representative to be unsanitary, unfit for human habitation or in such a condition that is likely to cause sickness or disease;

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15. If the building, because of obsolescence, dilapidated condition, deterioration, damage, inadequate exits, lack of sufficient fire-resistive construction, faulty electric wiring, gas connections or heating apparatus, or other cause, is determined by the Building Official or Administrator or an authorized representative to be a fire hazard;
  16. When any portion of an abandoned building or structure remains on a site after the demolition or destruction of the building or structure;
  17. When the building or its curtilage contains accumulations of litter; refuse; garbage; rubbish; junk; animal carcasses; decaying flesh, fish, fowls or vegetables; stagnant water or other stagnant liquid; flammable liquids; slops; trash; or other deposits or substances, which are unwholesome, filthy, unsightly, offensive or unsanitary; likely to create or engender disease; likely to harbor insects or rodents; or likely to pollute storm water;
  18. When a building which is partially constructed has not had any significant construction work done on it in the preceding six (6) months, and it is not secured by a fence or other means to prevent children and vagrants from entering the building; or
  19. When a building which is partially constructed has not had any significant construction work done on it in the preceding six (6) months, and all building materials and construction equipment and tools have neither been removed from the construction site nor secured at the site to prevent their use by children; their theft; their deterioration; their vandalism; or their harborage of rodents or insects.
- B. Any building or structure is a dangerous building when it is unsafe, unsanitary, substandard, unfit for human habitation, not provided with adequate egress, or which constitutes a fire hazard, otherwise dangerous to human life or which constitutes a hazard to the safety, health or welfare of the public or its occupants, for any reason or by reason of inadequate maintenance, dilapidation, obsolescence, or abandonment.
- C. Any building or structure is a dangerous building, regardless of its structural condition,
1. When unoccupied by its owners, lessees, or other invitees and unsecured from unauthorized entry to the extent that it could be entered or used by

vagrants or other uninvited persons as a place of harborage or could be entered or used by children, or

2. When boarded up, fenced or otherwise secured in any manner if the means used to secure the building or structure are inadequate to prevent unauthorized entry or use by vagrants or other uninvited persons as a place of harborage, or to prevent entry or use by children, or
3. When boarded up, fenced or otherwise secured in any manner if the building or structure constitutes a danger to the public even though secured from entry.

#### **Section 16.04 Commencement of Hearing**

- A. **Hearing.** The Administrator may schedule a hearing before the Municipal Court to determine whether a building or structure is a dangerous building and, if so, whether it shall be vacated, secured, repaired, removed, and/or demolished, or any occupants relocated. The Municipal Court shall be known as the “Hearing Authority”.
- B. **Scheduling of Hearing.** The Administrator may schedule a public hearing:
  1. When the Administrator has inspected any building or structure, other than an owner-occupied, single family dwelling, and has determined that such building is a dangerous building, and that such building is fifty (50) years old or older or located in a landmark preservation overlay zoning district, he shall report this determination to the local historic preservation board for review of the building pursuant to § 214.00111, Texas Local Government Code, or any successor statute, and the Administrator may thereafter schedule a hearing before the Hearing Authority as permitted by state law; or
  2. When the Administrator has inspected any owner-occupied, single family dwelling and has determined that such building is a dangerous building, he may schedule a hearing before the Hearing Authority. (Amend Ord 15-052, 10/27/15)
- C. **Issuance of Notice.**
  1. The Administrator shall issue a notice of hearing to each owner of the building and to each mortgagee and lienholder of the building and of the

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### 16.04

property on which it is located, as known by the city and as shown by search of the following records:

- a. Official Public Records of Real Property in Tarrant County, specifically in the Tarrant County Clerk's Office;
  - b. Appraisal district records for the appraisal district in which the building is located;
  - c. Records of the Texas Secretary of State;
  - d. Assumed name records for Tarrant County;
  - e. Tax records of the City of Arlington; and
  - f. Utility records for the City of Arlington.
2. The Administrator shall issue notice of hearing to all unknown owners, if any, by posting the notice as described in Section 16.04(E)(1).

D. **Contents of Notice.** The notice shall contain:

1. The street address or legal description of the building;
2. A statement that the Administrator has found the building to be dangerous, and a brief description of the conditions found to render the building dangerous under the provisions of Section 16.03;
3. A statement specifying the date, time and place of the hearing; and
4. A statement that the owner, lienholder, or mortgagee will be afforded an opportunity to comment at the hearing and will be required to submit at the hearing proof of the scope of any work that may be required to comply with the minimum standards set out in city ordinance and the time it will take to reasonably perform the work.

E. **Service of Notice.**

1. Notice of the hearing shall be given by certified mail, return receipt requested, or by personal service. If the address of any person entitled to notice cannot be ascertained, or if service cannot be made by mail or in person after a reasonable attempt, and for all unknown owners, service

shall be made by posting a copy of the notice on the front door of each improvement situated on the affected property or as close to the front door as practicable.

2. The notice shall be mailed and/or posted before the tenth (10th) day before the date of the hearing. Service by certified mail shall be effective on the date of mailing.
3. Proof of personal service shall be certified at the time of service by a written declaration executed by the person effecting service, declaring the date, time and manner in which service was made. The declaration, together with any receipt card returned in acknowledgment of receipt by certified mail shall be affixed to the copy of the notice retained by the Administrator.
4. Notice of the hearing may be filed in the Official Public Records of Real Property in Tarrant County, specifically in the Tarrant County Clerk's Office. The notice shall contain:
  - a. the name and address of the owner of the affected property if that information can be determined;
  - b. a legal description of the affected property; and
  - c. a description of the hearing.

The filing of the notice is binding on subsequent grantees, lienholders, or other transferees of an interest in the property who acquire such interest after filing of the notice, and constitutes notice of the hearing on any subsequent recipient of any interest in the property who acquires such interest after the filing of the notice.

#### **Section 16.05 Conduct of Hearing**

- A. **Failure to Appear.** If the owner of the building fails to appear at the hearing after being duly served, the Hearing Authority shall conduct the hearing as if the owner personally appeared.
- B. **Subpoena Power.** Witnesses may be subpoenaed in accordance with the procedures set forth in Article XI of the "Administration" Chapter.

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- C. **Procedure.** The Hearing Authority shall be authorized to establish rules and regulations for the conduct of hearings, if such are consistent with this Chapter, other local ordinances and state law.
- D. **Decisions and Orders.**
1. After all evidence has been presented at the hearing, the Hearing Authority shall determine whether the building or structure is a dangerous building. If more than one (1) building is located on a property and is the subject of the hearing, the Hearing Authority shall make a separate determination for each building.
  2. The Hearing Authority shall enter orders as set forth below:
    - a. If the building or structure is declared a dangerous building under Section 16.03, except Subsections (A)(16), (A)(17), (A)(18) and (A)(19), the Hearing Authority shall order the owner, at his option, to repair, remove or demolish the building. The Hearing Authority shall specify a reasonable period of time for the owner to do so.
    - b. If the building or structure is declared a dangerous building under Subsection 16.03(A)(16), the Hearing Authority shall order the owner to remove or demolish the building, and shall specify a reasonable period of time for the owner to do so.
    - c. If the building or structure is declared a dangerous building under Subsection 16.03(A)(17), the Hearing Authority shall order the owner to remove the accumulated matter, and shall specify a reasonable period of time for the owner to do so.
    - d. If the building or structure is declared a dangerous building under Subsection 16.03(A)(18), the Hearing Authority shall order the owner, at his option, to secure, demolish or remove the building, and shall specify a reasonable period of time for the owner to do so.
    - e. If the building or structure is declared a dangerous building under Subsection 16.03(A)(19), the Hearing Authority shall order the owner, at his option, to secure or remove all building materials, equipment and tools, and shall specify a reasonable period of time for the owner to do so.

- f. If the building or structure is declared a dangerous building under Section 16.03, the Hearing Authority shall order the owner to secure the building, and shall specify a reasonable period of time for the owner to do so. If the owner fails to properly secure the building as ordered, the Administrator may secure the building under Article XVII of this code, assessing expenses and placing liens against the property as authorized by this Chapter.
3. If necessary to protect the health, safety and welfare of the building's occupants, the Hearing Authority shall order the building vacated. If the condition of the building is due to neglect or to intentional or negligent acts by the owner, the Hearing Authority shall order the owner to relocate the occupants at his reasonable expense and in a reasonable manner. The Hearing Authority shall specify a reasonable period of time for the completion of the relocation.
4. The Hearing Authority shall also order an additional reasonable period of time for all mortgagees or lienholders to comply with the order should the owner fail to comply with the order within the time provided for action by the owner.
5. The Hearing Authority shall also order a civil penalty that the City may assess if the owner fails to repair, remove or demolish the building in accordance with the Hearing Authority's order. Such penalty shall not exceed the amount of One Thousand Dollars and No Cents (\$1,000.00) per day that the building is out of compliance with the order.
6. A reasonable period of time to comply with an order of the Hearing Authority is within thirty (30) days from the date of an order:
  - a. to secure the building from unauthorized entry, or
  - b. to repair, remove or demolish the building, unless the owner or lienholder or mortgagee establishes at the hearing that the work cannot reasonably be performed within thirty (30) days.
7. If the Hearing Authority finds that the work cannot reasonably be performed within thirty (30) days to repair, remove or demolish the building, the Hearing Authority shall order specific time schedules for the commencement and performance of the work and shall order the owner, lienholder, or mortgagee to secure the property in a reasonable manner from unauthorized entry while the work is being performed.

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8. The Hearing Authority shall not order the owner, lienholder, or mortgagee more than ninety (90) days to repair, remove, or demolish the building or fully perform all work required to comply with the order unless the owner, lienholder or mortgagee:
  - a. submits a detailed plan and time schedule for the work at the hearing; and
  - b. the Hearing Authority finds that the work cannot reasonably be completed within ninety (90) days because of the scope and complexity of the work.
  
9. If the Hearing Authority allows the owner, lienholder or mortgagee to complete any part of the work required to repair, remove or demolish the building within a time period that is more than ninety (90) days, the Hearing Authority shall order that the owner, lienholder or mortgagee regularly submit progress reports to the Administrator and appear before the Hearing Authority or its designee to prove compliance with the time schedule established for commencement and performance of the work. If the owner, lienholder, or mortgagee owns property, including structures or improvements on property, within the City of Arlington that exceeds \$100,000 in total value, the Hearing Authority may require the owner, lienholder, or mortgagee to post a cash or surety bond in an amount adequate to cover the cost of repairing, removing, or demolishing a building under this Article. The Hearing Authority may require the owner, lienholder, or mortgagee to provide a letter of credit from a financial institution or a guaranty from a third party approved by the City. The bond must be posted, or the letter of credit or third party guaranty provided, not later than the 30th day after the date the Hearing Authority issues the order.

### **Section 16.06 Contents of Order**

- A. An order issued by the Hearing Authority shall be in writing and shall set forth the decisions of the Hearing Authority made pursuant to Section 16.05(D).
  
- B. An order to repair shall set forth those items that need to be repaired.

- C. An order to vacate shall require the Administrator to post notice to vacate at or upon each entrance and exit of the building or structure in substantially the form described by Section 16.10.
- D. An order shall be signed by the Municipal Court Judge.
- E. A copy of the order shall be sent promptly after the hearing by certified mail, return receipt requested, to the owner of the building and to any lienholder or mortgagee of the building. If a notice is mailed according to this subsection and the United States Postal Service returns the notice as “refused” or “unclaimed”, the validity of the notice is not affected, and the notice shall be deemed as delivered.
- F. Within ten (10) days after the date the order is issued:
  - 1. a copy of the order shall be filed in the office of the City Secretary; and
  - 2. a notice shall be published in a newspaper of general circulation in the City, said notice containing:
    - a. the street address or legal description of the property;
    - b. the date of the hearing;
    - c. a brief statement indicating the results of the order; and
    - d. instructions stating where a complete copy of the order may be obtained. (Amend Ord 15-052, 10/27/15)

**Section 16.07 Failure to Comply With Order**

- A. If the owner of a building declared dangerous fails to comply with an order of the Hearing Authority within the allotted time, the Administrator shall cause a copy of the Hearing Authority's order to be sent by certified mail return receipt requested to each lienholder and mortgagee as was determined pursuant to Section 16.04(C). This shall constitute notice to the lienholders and mortgagees that the owner has failed to comply with the order.
- B. If the lienholders and mortgagees fail to comply with the order within the time allotted to them by the Hearing Authority, the Administrator may:

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1. Vacate, secure, repair, remove and/or demolish the building at the City's expense; or
  2. Assess a civil penalty against the owner of the building, as provided by the Hearing Authority, for failure to comply with the order.
- C. The Administrator is authorized to repair a building only to the extent necessary to bring the building into compliance with minimum standards, and only if the building is a residential building with ten (10) or fewer units.
- D. The Administrator is authorized, if the order requires demolition, to cause the building to be sold and demolished, or to be demolished and the materials, rubble and debris removed and the lot cleaned. Any such demolition work shall be accomplished, and the cost thereof paid and recovered in the manner provided in Article XVIII of this Chapter. Any surplus realized from the sale of any such building or from the demolition thereof over and above the cost of demolition and of cleaning the lot shall be paid to the person or persons lawfully entitled thereto.
- E. The Administrator is further authorized to ask the City Attorney to bring suit against the owner in a Tarrant County district court to request that a receiver be appointed to rehabilitate the property.

### **Section 16.08 Liens for Penalties and Expenses**

- A. If pursuant to this Chapter the City assesses a civil penalty or incurs expenses including the Administrative Fee as set by resolution of City Council for City administrative expenses, the City may assess the expenses or penalty on and place a lien against the land on which the building was located, unless the land is a homestead protected by the Texas Constitution. (Amend Ord 07-096, 12/18/07)
- B. A lien imposed pursuant to this article is a privileged lien as provided by Local Government Code Chapter 214. (Amend Ord 15-052, 10/27/15)
- C. The lien arises and attaches to the property at the time the notice of the lien is recorded and indexed in the official public records of real property in Tarrant County, specifically in the office of the county clerk for Tarrant County. The notice shall contain the name and address of the owner if that information can be determined; a legal description of the land on which the building was located; the amount of expenses incurred by the City or the civil penalty and the balance due.

- D. A lien under this chapter is extinguished when the property owner or other person with an interest in the legal title to the land pays the City the balance due in full. At the time of sale of properties with the aforementioned privileged lien, the lien shall be released without payment if the purchaser's family income meets the current Department of Housing and Urban Development Low or Moderate Income Requirements for the Fort Worth-Arlington Primary Metropolitan Statistical Area in accordance with federal law.
- E. At the time of sale of properties with the aforementioned privileged lien, the lien may be assumed if the purchaser is a 26 U.S.C.A. §501(c)(3) not-for-profit entity with the principal office located in Tarrant County, Texas, the primary purpose of which is constructing or rehabilitating single family homes for people who meet the current Department of Housing and Urban Development (HUD) Low or Moderate Income Requirements for the Fort Worth-Arlington Primary Metropolitan Statistical Area in accordance with federal law.

**Section 16.09 Notice and Collection of Penalty and Expenses**

- A. If the City incurs expenses under this Chapter including the Administrative Fee as set by resolution of City Council for City administrative expenses, the Administrator shall cause a statement to be sent to the owner, setting forth the amount of the expenses and the interest accrued to date. The Administrator may thereafter cause an annual statement to be sent to the owner until the expenses and interest are paid in full. (Amend Ord 07-096, 12/18/07)
- B. If the City assesses a civil penalty pursuant to this Chapter, the Administrator shall cause a notice to be sent to the owner that the City has begun assessing the penalty provided by the order. Thereafter, the Administrator may cause a monthly statement to be sent to the owner, setting forth the amount of the accrued penalty and interest, until the penalty and interest is paid in full.
- C. A civil penalty or assessment for expenses shall accrue interest at the rate of ten percent (10%) per annum or as allowed by law from the date of assessment until paid in full.
- D. The City shall be entitled to all remedies provided by law for the collection of debt in order to recover penalty, expenses and interest. However, the City shall not be entitled to foreclose a lien for repair expenses if the property on which the repairs were made is occupied as a residential homestead by a person sixty-five (65) years of age or older.

**Section 16.10 Notice to Vacate; Violations**

- A. Every notice to vacate shall be posted at or upon each entrance and exit of the building and shall be in substantially the following form:

DO NOT ENTER  
UNSAFE TO OCCUPY

It is a misdemeanor to occupy this building,  
or to remove or deface this notice.

Director of Community Services  
City of Arlington

The Notice to Vacate shall specify the conditions which necessitate the posting and recite the emergency or shall identify the order to vacate and state where a complete copy of the order may be obtained. (Amend Ord 06-081, 8/22/06)

**B. Compliance; Violations**

No person shall remain in or enter any building which has been posted, except that entry may be made to repair, remove, demolish or secure such building under permit. No person shall remove or deface any such notice after it is posted until the required work has been completed and a Certificate of Occupancy is issued pursuant to the provisions of the Building Code. Any person violating this subsection shall be guilty of a misdemeanor punishable by a fine not to exceed Two Thousand Dollars and No Cents (\$2,000.00).

**Section 16.11 Other Enforcement**

- A. It is a violation for any person, firm or corporation to own, lease, use, occupy or maintain a dangerous building as defined in this Article, or to cause or permit the same to be done, in the City of Arlington. A violator shall be guilty of a misdemeanor punishable by a fine not to exceed Two Thousand Dollars and No Cents (\$2,000) for each violation pursuant to the penalties provisions of this Chapter. (Amend Ord 12-020, 4/24/12)

- B. Each day that a violation continues shall constitute a separate offense.
- C. A criminal prosecution shall be in addition to any civil remedies to which the City is entitled. The remedies provided by this article shall be in addition to the remedies provided by this chapter or any other applicable ordinance or statute.
- D. No person shall obstruct, impede or interfere with any officer, employee, contractor or authorized representative of the City or with any person who owns or holds an estate or interest in any building or structure which has been ordered repaired, removed, secured, vacated or demolished under the provisions of this Code, or with any person to whom such building has been lawfully sold, whenever such officer, employee, contractor or authorized representative of the City, person having an interest or estate in such building or structure, or purchaser is engaged in the work as ordered or in performing any necessary act preliminary to or incidental to such work. A person who obstructs, impedes or interferes with an order of the Hearing Authority shall be guilty of a misdemeanor punishable by a fine not to exceed Two Thousand Dollars and No Cents (\$2,000.00).

#### **Section 16.12 Swimming Pool Enclosures**

- A. The Administrator may repair, replace, secure, or otherwise remedy a swimming pool enclosure or fence that is damaged, deteriorated, substandard, dilapidated, or otherwise in a state that poses a hazard to the public health, safety, and welfare.
- B. The Administrator may require the owner of the property on which the swimming pool or enclosure or fence is situated, after notice and hearing as provided in this Chapter, to repair, replace, secure, or otherwise remedy an enclosure or fence of a swimming pool that the Administrator determines violates minimum standards in accordance with state or city law.
- C. If the enclosure or fence is on unoccupied property or is on property occupied only by persons who do not have a right of possession to the property, the Administrator shall give notice to the owner, in accordance with the procedures set out in this Chapter, of the municipality's action to repair, replace, secure, or otherwise remedy an enclosure or fence of a swimming pool.
- D. If the City incurs expenses under this Article including the Administrative Fee as set by resolution of City Council for City administrative expenses, the Administrator may assess the expenses on, and the City has a lien against the

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property on which the swimming pool or the enclosure or fence is situated, unless it is a homestead as protected by the Texas Constitution. The lien is extinguished if the property owner or another person having an interest in the legal title to the property reimburses the City for the expenses. The lien arises and attaches to the property at the time the lien is recorded in the office of the Tarrant County Clerk. The lien must contain the name and address for the owner if that information can be determined with a reasonable effort, a legal description of the real property on which the swimming pool or the enclosure or fence is situated, the amount of expenses incurred by the City, and the balance due. The lien is a privileged lien subordinate only to tax liens and all previously recorded bona fide mortgage liens attached to the real property to which the City's lien attaches. (Amend Ord 07-096, 12/18/07)

- E. It is a violation for any person, firm or corporation to maintain a swimming pool enclosure or fence that is damaged, deteriorated, substandard, dilapidated or otherwise in a state that poses a hazard to the public health, safety, and welfare or to cause or permit the same to be done in the City of Arlington. A violator shall be guilty of a misdemeanor punishable by a fine not to exceed One Thousand Dollars and No Cents (\$1,000) for each violation. Each day a violation occurs constitutes a separate offense. (Amend Ord 04-004, 1/13/04)

### **Section 16.13 Requiring Repair, Removal, or Demolition of Structure**

- A. If the Administrator has reason to believe that a fence, shed, awning, retaining wall, or other structure, or part of a structure, hereinafter referred to as "structure", is likely to endanger persons or property, the Administrator shall schedule a public hearing before the Hearing Authority for a determination of whether the structure is likely to endanger persons or property and for the issuing of a proposed order on the repair, removal or demolition of the structure.
- B. Hearing Authority Hearing
1. Scheduling a Hearing. The Administrator shall schedule a hearing when the Administrator has determined that such structure is likely to endanger persons or property.
  2. Issuance of Notice.
    - a. The Administrator shall issue a notice of hearing to each owner of the structure, owner of the property on which the structure is

located, mortgagee, and lienholder, as known by the City and as shown by search of the following records:

- (1) Official Public Records of Real Property in Tarrant County, specifically in the Tarrant County Clerk's Office;
  - (2) Appraisal district records for the appraisal district in which the structure is located;
  - (3) Records of the Texas Secretary of State;
  - (4) Assumed name records for Tarrant County;
  - (5) Tax records of the City of Arlington; and
  - (6) Utility records for the City of Arlington.
- b. The Administrator shall issue notice of hearing to all unknown owners, if any, by posting a copy of the notice on the front door of each improvement situated on the affected property or as close to the front door as practicable.
3. Contents of Notice. The notice shall contain:
- a. The street address or legal description of the structure;
  - b. A statement that the Administrator has found that the structure is likely to endanger persons or property, and a brief description of the conditions found to render such likely to endanger persons or property;
  - c. A statement specifying the date, time and place of the hearing; and
  - d. A statement that the owner of the structure, owner of the property on which the structure is located, mortgagee, and lienholder will be afforded an opportunity to comment at the hearing and will be required to submit at the hearing proof of the scope of any work that may be required to abate the condition likely to endanger persons or property and the time it will take to reasonably perform the work.

4. Service of Notice.

- a. Notice of the hearing shall be given by certified mail, return receipt requested, or by personal service. If the address of any person entitled to notice cannot be ascertained, or if service cannot be made by mail or in person after a reasonable attempt, and for all unknown owners, service shall be made by posting a copy of the notice on the front door of each improvement situated on the affected property or as close to the front door as practicable.
- b. The notice shall be mailed and/or posted before the tenth (10th) day before the date of the hearing. Service by certified mail shall be effective on the date of mailing.
- c. Proof of personal service shall be certified at the time of service by a written declaration executed by the person effecting service, declaring the date, time and manner in which service was made. The declaration, together with any receipt card returned in acknowledgment of receipt by certified mail shall be affixed to the copy of the notice retained by the Administrator.
- d. Notice of the hearing may be filed in the Official Public Records of Real Property in Tarrant County, specifically in the Tarrant County Clerk's Office. The notice shall contain:
  - (1) the name and address of the owner of the affected property if that information can be determined;
  - (2) a legal description of the affected property; and
  - (3) a description of the hearing.

The filing of the notice is binding on subsequent grantees, lienholders, or other transferees of an interest in the property who acquire such interest after filing of the notice, and constitutes notice of the hearing on any subsequent recipient of any interest in the property who acquires such interest after the filing of the notice.

5. Conduct of Hearing.

- a. Failure to Appear. If the owner fails to appear at the hearing after being duly served, the Hearing Authority shall conduct the hearing as if the owner personally appeared.
- b. Subpoena Power. Witnesses may be subpoenaed in accordance with the procedures set forth in Article XI of the Administration Chapter of the City Code of Ordinances.
- c. Procedure. The Hearing Authority shall be authorized to establish rules and regulations for the conduct of hearings, if such are consistent with this Chapter, other local ordinances and state law.

6. Findings and Orders.

- a. After all evidence has been presented, the Hearing Authority shall determine whether the structure is likely to endanger persons or property.
- b. The Hearing Authority shall enter an order as set forth below:
  - (1) If the structure is believed by the Hearing Authority to likely endanger persons or property, the Hearing Authority may issue an order that:
    - (a) finds that the structure is likely to endanger persons or property;
    - (b) orders the owner of the structure or owner of the property on which the structure is located, at his option, to repair, remove, or demolish the structure, or the part of the structure within a specified time;
    - (c) orders an additional specified period of time for all mortgagees or lienholders to comply with the order should the owner of the structure or the owner of the property on which the structure is located fail to comply with the order within the time provided for action; and

(d) orders that if the owner of the structure or the owner of the property on which the structure is located fails to comply with any part of the order by the specified dates and if any of the mortgagees or lienholders fail to comply with the order in the owner's stead by the specified dates, the City is hereby authorized at its discretion to repair, remove or demolish, at the expense of the City, on behalf of the owner of the structure or the owner of the property on which the structure is located, and assess the repair, removal or demolition expenses on the property on which the structure was located.

(2) If the structure is not believed by the Hearing Authority to likely endanger persons or property, the Hearing Authority may issue an order that finds that the structure is not likely to endanger persons or property.

7. Proposed Order.

- a. The proposed order issued by the Hearing Authority shall be in writing and shall set forth the decisions of the Hearing Authority made pursuant to this Chapter.
- b. An order to repair, remove or demolish shall set forth those items that need to be repaired, removed, or demolished.
- c. The proposed order shall be signed and dated by the Municipal Court Judge or one or more persons assigned the responsibility of conducting a hearing under this Chapter.
- d. After the hearing, the Hearing Authority shall promptly send a copy of the proposed order, a record of the hearing and any evidence to the Administrator.
- e. The Administrator shall promptly send a copy of the Hearing Authority's proposed order by certified mail, return receipt requested, to the owner of the structure, owner of the property on which the structure is located, mortgagee, and lienholder. If a notice is mailed according to this subsection and the United States Postal Service returns the notice as "refused" or "unclaimed", the

validity of the notice is not affected, and the notice shall be deemed as delivered.

- f. The Administrator may schedule on the City Council agenda the proposed order for final resolution by City Council no later than 30 days from the date of the proposed order. The Administrator shall issue notice to each owner of the structure, owner of the property on which the structure is located, mortgagee, and lienholder of the City Council agenda date, time and place for final resolution pursuant to the issuance, contents and service of notice for the Hearing Authority's hearing in this Chapter. (Amend Ord 12-020, 4/24/12)

C. City Council Resolution or Final Order

1. City Council may adopt, in whole or part, by City Council Resolution, the Hearing Authority's Proposed Order as its finding and order and the proposed order will become the final order.
2. City Council may amend, modify or reject the Hearing Authority's proposed order. If City Council amends, modifies or rejects the Hearing Authority's proposed order, the City Council, by City Council Resolution, shall issue its finding and order as the final order. City Council's finding and order shall be issued in accordance with the Hearing Authority's procedures for Findings and Decisions set forth in this Chapter.
3. If the Administrator does not schedule the proposed order on the City Council agenda after the expiration of 30 days from the proposed order, then the proposed order becomes the final order.
4. A copy of the City Council Resolution or final order shall be sent promptly by the Administrator by certified mail, return receipt requested, to the owner of the structure, owner of the property on which the structure is located, mortgagee, and lienholder. If such City Council Resolution or final order is mailed according to this subsection and the United States Postal Service returns the order as "refused" or "unclaimed", the validity of notice of the City Council Resolution or final order is not affected, and the order shall be deemed as delivered.
5. Within ten (10) days after the date of passage of the City Council Resolution or effective date of the final order:

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- a. a copy of the City Council Resolution or final order containing its finding and order regarding the structure shall be filed in the Office of the City Secretary; and
  - b. a notice shall be published in a newspaper of general circulation in the City, said notice containing:
    - (1) the street address or legal description of the property;
    - (2) the date of consideration of the City Council Resolution or effective date of the final order;
    - (3) a brief statement indicating the results of the City Council Resolution; and
    - (4) instructions stating where a complete copy of the City Council Resolution or final order may be obtained.
    - (5) If the owner of the structure or the owner of the property on which the structure is located fails to comply with an order in the City Council Resolution or final order within the allotted time, the Administrator shall cause a copy of the City Council Resolution or final order to be sent by certified mail return receipt requested to each lienholder and mortgagee as was determined pursuant to this Chapter. This shall constitute notice to the lienholders and mortgagees that the owner has failed to comply with the order.
6. When any work to repair, remove, or demolish is done by the City pursuant to this Chapter, the Administrator shall cause the work to be accomplished by City personnel or by private contract under the direction of the Administrator, or he may employ such architectural, engineering, or other specialized assistance on a contract basis as reasonably necessary.
  7. Any expenses for work to repair, remove or demolish shall be assessed pursuant to Article XVIII of the Construction Chapter except as to the following:

The Administrator shall also provide notice of the assessment to the owner of the structure and the owner of the property on which the structure was located by mailing by certified mail, postage prepaid a copy of the Hearing Authority's order assessing cost. (Amend Ord 12-020, 4/24/12)

**ARTICLE XVII**

**ADDITIONAL AUTHORITY TO SECURE BUILDING**

**Section 17.01 Authority to Secure Building**

The Administrator may secure or cause to be secured a building at the City's expense if he determines:

1. That the building or structure violates the minimum standards for the use and occupancy of buildings in the City regardless of the date of their construction, and
2. That the building or structure is unoccupied or is occupied only by persons who do not have a right of possession to the building.

**Section 17.02 Issuance of Notice**

Before the eleventh (11th) day after the date the building is secured pursuant to Section 17.01, the Administrator will give notice to the owner that the building has been secured. The Administrator may also give notice to each mortgagee and lienholder, and to any unknown owners, in the same manner as described by Section 16.04(C).

**Section 17.03 Contents of Notice**

The notice will contain:

1. An identification of the building and the property on which it is located; and
2. A description of the violation of the ordinance that is present at the building; and
3. A statement that the City has secured the building; and

4. A statement explaining the owner's right to request a hearing about any matter relating to the City's securing of the building.

**Section 17.04 Service of Notice**

Notice regarding the securing of the building shall be given by either:

1. personally serving the owner with written notice;  
or
2. depositing the notice in the United States mail addressed to the owner at the owner's post office address; or
3. if personal service cannot be obtained and the owner's post office address is unknown;
  - a. publishing the notice at least twice within a ten (10) day period in the official newspaper of the City; or
  - b. posting the notice on or near the front door of the building.

**Section 17.05 Hearing**

If, within thirty (30) days after the date a building is secured pursuant to this Chapter, the owner files with the Administrator a written request for a hearing, the Administrator will schedule a hearing before the Hearing Authority. At the hearing the owner may testify or present witnesses or written information about any matter relating to the City's securing of the building.

**A. Scheduling of Hearing**

The Hearing Authority will conduct the hearing within twenty (20) days after the date the request is filed.

**B. Notice of Hearing**

Notice of the hearing shall be provided to the requestor by personal service or certified mail, return receipt requested, before the 10th day before the hearing, in the same manner as provided in Section 16.04(E) (2) and (3).

**Section 17.06 Liens and Collection of Expenses**

If the City incurs expenses under this Chapter including the Administrative Fee as set by resolution of City Council for City administrative expenses, the City may assess the expenses on and place a lien against the land on which the building is located, in accordance with this Chapter. (Amend Ord 07-096, 12/18/07)

**ARTICLE XVIII**

**PERFORMANCE OF WORK AND RECOVERY OF COST**

**Section 18.01 General Procedure**

When any work to repair, remove, secure, vacate, or demolish is to be done pursuant to this code, the Administrator shall cause the work to be accomplished by City personnel or by private contract under the direction of the Administrator, or he may employ such architectural, engineering, or other specialized assistance on a contract basis as reasonably necessary.

**Section 18.02 Account of Expense, Filing of Report: Contents**

The Administrator shall keep an itemized account of the expense incurred by this jurisdiction for the work to repair, remove, secure, vacate or to demolish any building pursuant to the provisions of this Chapter. Upon the completion of the work, the Administrator shall prepare a report specifying the work done, the itemized and total cost of the work including the Administrative Fee as set by resolution of City Council for City administrative expenses, a description of the real property upon which the building or structure is or was located and the names and addresses of the persons entitled to notice. (Amend Ord 07-096, 12/18/07)

**Section 18.03 Report Transmitted to Hearing Authority - Set for Hearing**

Upon completion of the expense report, the Administrator shall present it to the Hearing Authority for consideration. The Hearing Authority shall fix a time, date and place for hearing the report, and any protests or objections. The Administrator shall cause notice of said hearing to be posted upon the property involved, published once in a newspaper of general circulation in the City and served by certified mail, postage prepaid, addressed to the owner of the property as his name and address appear on the last assessment roll of the county, if such so appear, or as known to the Administrator. Such notice shall be given at least ten (10) days prior to the date set for hearing and shall specify the day, hour and place when the Hearing

Authority will hear and pass upon the Administrator's report, together with any objections or protests which may be filed as hereinafter provided by any person interested in or affected by the proposed charge.

**Section 18.04 Protests and Objections - How Made**

Any person interested in or affected by the proposed report may file written protests or objections with the Administrator at any time prior to the time set for the hearing on the report of the Administrator. Each such protest or objection must contain a description of the property in which the signer thereof is interested and the grounds of each such protest or objection. The Administrator shall endorse on every such protest or objection the date it was received. He shall present such protests or objections to the Hearing Authority at the time set for the hearing, and no other protests or objections shall be considered.

**Section 18.05 Hearing of Protests**

Upon the day and hour fixed for the hearing, the Hearing Authority shall hear and pass upon the report of the Administrator together with any such objections or protests. The Hearing Authority may make such revision, correction or modification in the report or the charge as it may deem just; and when the Hearing Authority is satisfied with the correctness of the charge, the report (as submitted or as revised, corrected or modified) together with the charge, shall be confirmed or rejected. The decision of the Hearing Authority, on the report and the charge and on all protests or objections, shall be final and conclusive, subject to appeal no later than thirty (30) days after the report is adopted or revised by the Hearing Authority.

**Section 18.06 Assessment**

- A. **General**. The Hearing Authority may thereupon assess said charge against the property involved.
- B. **Assessment**. If the Hearing Authority orders that the charge shall be assessed against the property, it shall confirm the charge, cause the same to be recorded and

thereafter, said assessment shall constitute an assessment against and a lien upon the property.

**Section 18.07 Contest**

The validity of any assessment made under the provisions of this Article shall not be contested in any action or proceeding unless the same is commenced within thirty (30) days after the assessment is placed upon the property as provided herein. Any appeal from a final judgment in such action or proceeding must be perfected within thirty (30) days after the entry of such order by the Hearing Authority.

**Section 18.08 Authority for Installation Payment of Assessments with Interest**

The Hearing Authority, in its discretion, may determine that assessments in amounts of \$500.00 or more shall be payable in not to exceed five (5) equal annual installments. The Hearing Authority determination to allow payment of such assessments in installments, the number of installments, whether they shall bear interest and the rate thereof shall be by order adopted prior to, or at the same time as the confirmation of the assessment.

**Section 18.09 Lien of Assessment**

- A. **Priority.** Immediately upon its recording, the assessment shall be deemed to be complete, the amount assessed shall be payable, and the assessments shall be liens against the lots or parcels of land assessed, respectively. The lien shall be subordinate to all existing assessment liens previously imposed upon the same property and shall be paramount to all other liens except for state, county and municipal taxes, with which it shall be upon a parity. The lien shall continue until the assessment and all interest due and payable thereon are paid.
- B. **Interest.** All such assessments remaining unpaid after thirty (30) days from the date of recording shall become delinquent and shall bear interest at the rate

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of ten percent (10%) per annum or as allowed by law from and after said date.

- C. A lien under this chapter is extinguished when the property owner or other person with an interest in the legal title to the land pays the City the balance due in full. At the time of sale of properties with the aforementioned lien, the lien shall be released without payment if the purchaser's family income meets the current Department of Housing and Urban Development Low or Moderate Income Requirements for the Fort Worth-Arlington Primary Metropolitan Statistical Area in accordance with federal law.
  
- D. At the time of sale of properties with the aforementioned lien, the lien may be assumed if the purchaser is a 26 U.S.C.A. §501(c)(3) not-for-profit entity with the principal office located in Tarrant County, Texas, the primary purpose of which is constructing or rehabilitating single family homes for people who meet the current Department of Housing and Urban Development Low or Moderate Income Requirements for the Fort Worth-Arlington Primary Metropolitan Statistical Area in accordance with federal law.  
(Amend Ord 04-004, 1/13/04)

**ARTICLE XIX**

**CONSTRUCTION ON LAKE ARLINGTON**

**Section 19.01**        **Definitions**

"Boathouse" means any unenclosed covered structure or attached appurtenance which is used for the temporary or permanent storage of watercraft or personal property on or over the water.

"Earthwork" means the disturbance of soils associated with filling, clearing, grading or excavation.

"Facilities" mean any building, boathouse, pier or other structure or any combination of structures.

"Lake Arlington" means all of the waters within the Lake Arlington reservoir area that are located within the corporate limits of the City of Arlington.

"Lake Arlington Flowage Easement or Flowage Easement" shall have the meaning assigned by the Lake Arlington Chapter.

"Lake Arlington Reservoir Area or Reservoir Area" shall have the meaning assigned by the Lake Arlington Chapter.

"License agreement" shall have the meaning as assigned by the Lake Arlington Chapter.

"Person" means any natural person, association of persons, partnership, corporation, agent or officer, or other entity.

"Pier" means any pier, wharf, boat dock, gangway, or other platform or structure in or adjoining the water to which vessels may be moored, by which they may be boarded, or on which persons may walk or sit.

"Shoreline" means the edge of the water as established by the 550 foot elevation.

"Shoreline Restoration" shall have the meaning as assigned by the Lake Arlington Chapter.

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"Walkways and bridges" means the constructed pedestrian facilities for the purpose of connecting piers and boathouses to the property. Walkways and bridges are located above the 550 feet elevation.

### **Section 19.02            Permits Required**

No person shall erect, construct, enlarge, alter, repair, remove, convert or demolish any retaining wall, walkway, boathouse, or pier; or to excavate, grade, or fill property or cause the same to be done on any property located within the Lake Arlington Flowage Easement or in the Lake Arlington Reservoir Area without first obtaining a permit in accordance with Article IV of this Chapter. No person shall erect, construct or convert any retaining wall, walkway, boathouse, or pier; or to excavate, grade, or fill property or cause the same to be done on any property located within the Lake Arlington Reservoir Area except for structure support poles, piers, anchors or rip rap for slope stabilization. The building official may only issue a permit upon finding that the proposed work complies with the construction standards in this Article and with the building codes as may be applicable. The building official may not issue a permit for any work proposed for new or existing boathouses or piers or other structures unless there is a current annual license agreement approved by the Lake Ordinance Administrator as required in the Lake Arlington Chapter.

Contractors performing work in or on the Lake Arlington Reservoir Area must have on file Contractor's Public Liability Insurance with a combined single limit of not less than Five Hundred Thousand and No/100 Dollars (\$500,000.00) per occurrence, with an aggregate of not less than Five Hundred Thousand and No/100 Dollars (\$500,000.00). The Registrant shall make the City of Arlington a Certificate Holder and present proof of insurance at the time of registration and all subsequent renewals. Notice of policy cancellations or failure to renew coverage shall be cause for revocation of registration, denial of inspections or cancellation of permits.

In the event provisions in this article conflict with any other provisions in the City Code, the stricter of the two requirements shall take precedent.

### **Section 19.02.01            Work Within Lake Arlington or the Flowage Easement**

When an existing structure within Lake Arlington or the Flowage Easement is to be replaced, repaired, or extended, the existing structure must comply or be brought into compliance with this Article when any of the following apply:

- A. The work affects more than fifty percent (50%) of the length of a retaining wall, or
- B. The work affects more than fifty percent (50%) of the floor area of the dock/pier, or
- C. The work affects more than fifty percent (50%) of the area of a sundeck, or
- D. The work affects more than fifty percent (50%) of the area of the roof structure.

EXCEPTION. If the cost of such replacement, repair, or extension does not exceed 50% of the reasonable value of the existing structure, only the portion of the structure replaced, repaired, or extended must conform to the provisions of the ordinance. The applicant has the burden of proof to establish the reasonable value of the existing structure and the cost of the requested replacement, repair, or extension. (Amend Ord 12-011, 4/3/12)

**Section 19.02.02      Appeals to Requirements of Section 19.02.01**

The owner of the premises, or an authorized agent, who seeks to erect or alter a building or structure within Lake Arlington or the Flowage Easement may appeal from a decision of the Building Official specifically regarding Section 19.02.01 to the Director of Water Utilities through the Building Official.

- A. The notice of appeal shall be filed within thirty (30) days after the Building Official renders a decision: provided, however, that said Building Official may limit the time for appeal to a shorter period in cases involving buildings or structures that are, in the Building Official's opinion, unsafe or dangerous.
- B. Initiating work, progressing with that portion of work which is the particular issue on appeal, or progressing with work which would cover the matter on appeal, shall void such appeal.
- C. The Director of Water Utilities, when appealed to, shall conduct a hearing within a reasonable time and no earlier than ten (10) days after sending written notice of the time, location, and purpose of such hearing to the applicant. After such hearing, the Director of Water Utilities may vary the application of any provision of Section 19.02.01 to any particular case when, in its opinion, the enforcement thereof would do manifest injustice and would be contrary to the spirit and purpose of Section 19.02.01 or the public interest, or when, in its opinion, the

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interpretation of the Building Official should be modified or reversed for any other reason. A decision of the Director of Water Utilities to vary the application of any provision of Section 19.02.01 or to modify an order of the Building Official shall specify in what manner such variation or modification is made, the conditions upon which it is made and the reasons therefore. The decision shall be in writing. The decision shall be promptly filed in the office of the Building Official and shall be open to the public for inspection. A true and correct copy of the decision shall promptly be sent by mail or otherwise to the appellant and a copy shall be publicly posted in the office of the Building Official for two (2) weeks after the filing thereof.

- D. The decision of the Director of Water Utilities shall be final, subject, however, to such remedy as any aggrieved party might have at law or in equity. Any person, firm or corporation aggrieved by any decision of the Director of Water Utilities may present to a court of record a petition, duly verified, setting forth that such decision is illegal in whole or in part, and specifying the grounds of the illegality. Unless such petition (appeal) shall be presented to the court within ten (10) days of the decision of the Director of Water Utilities is mailed or otherwise provided to appellant, the decision of the Director of Water Utilities shall become final.
- E. If a decision of the Director of Water Utilities reverses or modifies any decision of the Building Official or varies the application of any provision of Section 19.02.01, the Building Official shall immediately take action in accordance with such decision. (Amend Ord 12-011, 4/3/12)

### **Section 19.03            Earthwork**

- A. Prior to performing any earthwork within the Lake Arlington Reservoir Area or Flowage Easement, a site plan must be submitted for review and accepted. Permanent structures proposed with the site plan, such as retaining walls, boathouses or piers require a construction permit in accordance with Article IV of this Chapter.
- B. The following items shall be included with the site plan submittal:
  - 1. Description of the work.
  - 2. Plan prepared by a licensed Professional Engineer showing existing and proposed grades (topography), easements and structures where applicable.

Existing topography shall be verified by a Registered Public Land Surveyor.

3. Cross-section(s) of any proposed excavation or fill at intervals sufficient to determine the volume of earth to be placed within or removed from the Flowage Easement.
  4. Earthwork calculations demonstrating the volume of fill to be placed within the Flowage Easement and/or Lake Arlington.
  5. Copy of 404 permit from the U.S. Army Corps of Engineers, as necessary.
- C. Plans which show that the work has been completed as originally intended on the approved site plan (Record Drawings) must be provided and accepted upon completion of earthwork activities. The record drawing must include a verification statement or seal prepared by a Registered Public Land Surveyor.

**Section 19.04            Design and Construction Requirements for Retaining Walls**

- A. Engineering design requirements.
1. All retaining wall plans must be designed and sealed by a licensed professional engineer.
  2. If any part of the retaining wall is located at or below 560 feet above mean sea level, then the design and construction of the entire retaining wall must comply with this Article.
  3. The height of a retaining wall is measured from the bottom of the footing or foundation to the top of the wall.
  4. Retaining walls shall be constructed in stepped or terraced design. The maximum exposed height for a retaining wall that is located closest to the water's edge shall be no more than six (6) feet. Subsequent terraced retaining walls shall be no more than four (4) feet in height.

**EXCEPTION.** If physical limitations on the site or structural engineering conditions make terracing technically unfeasible. In any case the maximum height of any retaining wall or retaining wall segment is six (6) feet.

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5. When walls are terraced, the upper wall shall be separated from the lower wall by a minimum of five (5') feet measured horizontally.
6. A bio-retention planting strip is required in the areas between terraced retaining walls and behind the top of the upper retaining wall. The planting strip shall be a minimum five feet (5') from the back and top of the retaining wall for the entire width of the retaining wall. The bio-retention planting strip shall be planted with deep rooted native or adapted grasses, ground cover and/or shrubs. Approved Lake Arlington Planting Materials are listed in the Lake Arlington Chapter and below.

Table 19A - Approved Lake Arlington Planting Materials		
Buffalo Grass	<i>Bouteloua dactyloides</i>	grass
Indian Paintbrush	<i>Castilleja indivisa</i>	grass
Plains coreopsis	<i>Coreopsis lanceolata</i>	grass
Lindheimer's Muhly	<i>Muhlenbergia lindheimeri</i>	grass
Indian Blanket	<i>Gaillardia pulchella</i>	grass
Annual Phlox	<i>Phlox drummondii</i>	grass
Island Sea Oats	<i>Chasmanthium latifolium</i>	tall grass
Purple Cone Flower	<i>Echinacea pallida</i>	tall grass
Black-eyed Susan	<i>Rudbeckia hirta</i>	tall grass
Maidenhair Fern	<i>Adiantum capillus-veneris</i>	ground cover
Frogfruit	<i>Phyla nodiflora</i>	ground cover
Spiderwort	<i>Tradescantia spp.</i>	ground cover
Wax Myrtle	<i>Myrica cerifera</i>	shrub
Dwarf Palmetto	<i>Sabal minor</i>	shrub
Turk's Cap	<i>Malvaviscus arboreus var. drummondii</i>	shrub

- B. Retaining wall materials.
  1. The following materials are approved for the construction or veneer of retaining walls:
    - a. Interlocking masonry, stone, or brick;
    - b. Poured decorative concrete; and
    - c. Aesthetic sheet piling designed specifically for shoreline retaining walls.

2. Rock gabion or rock rip-rap is required at the exposed foot of the lowest retaining wall and may only extend one foot above and below the foot of the wall. Rock or rip-rap shall consist of rocks ranging in sizes from eight inches in diameter to twelve inches in diameter and must be installed over a non-woven structural fabric.
3. The following materials are expressly prohibited for the construction or veneer of retaining walls:
  - a. concrete bags;
  - b. plain concrete
  - c. reclaimed or broken concrete;
  - d. commercial sheet piles;
  - e. other metal; or
  - f. wood.

**Section 19.05      Design and Construction Requirements for Piers and Boathouses**

- A. All piers and boathouse in Lake Arlington shall be considered accessory structures. A primary structure must be present on the lot to which a pier, boathouse and/or walkway is erected or constructed.
- B. All piers and boathouses must be designed and sealed by a licensed professional engineer. The following specific criteria must be incorporated in the engineer's design and be included on the construction documents:
  1. All piers and/or boathouses shall be designed to withstand the loads as specified in the Building Code,
  2. All piers and/or boathouses shall be designed to withstand a minimum of four foot high wave action and the design wind load simultaneously;

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3. Designs shall include the impacts of wind and wave action effects of boats attached to the pier and/or boathouse.
  4. Floating piers and boathouses shall be designed with anchorage footing and piers to remain in place to prevent the structure from floating or rising above the 100-year flood elevation; (Amend Ord 12-011, 4/3/12)
  5. Cables and chains used in anchoring systems shall be designed with a minimum working load safety factor of 3.0 for cables and 2.0 for chains;
  6. Flotation devices for boathouses, walkways and bridges shall be designed and/or manufactured to support the dead load and live load as a fixed structure.
- C. Building zone width. The building zone width is determined by the extension of the side property lines of a lot into the lake less the required minimum side setback. Minimum side setbacks for piers and boathouses from the extended side property lines are as set forth in Table 19B - Buildable Zone Width. See Figure 19A - Buildable Zone Width for illustration purposes.

Table 19B - Buildable Zone Width

LOT WIDTH	MIN SIDE SET BACK
Less than 50 feet	5 feet
50 feet to 69 feet	10 feet
70 feet to 99 feet	15 feet
100 feet or more	20 feet

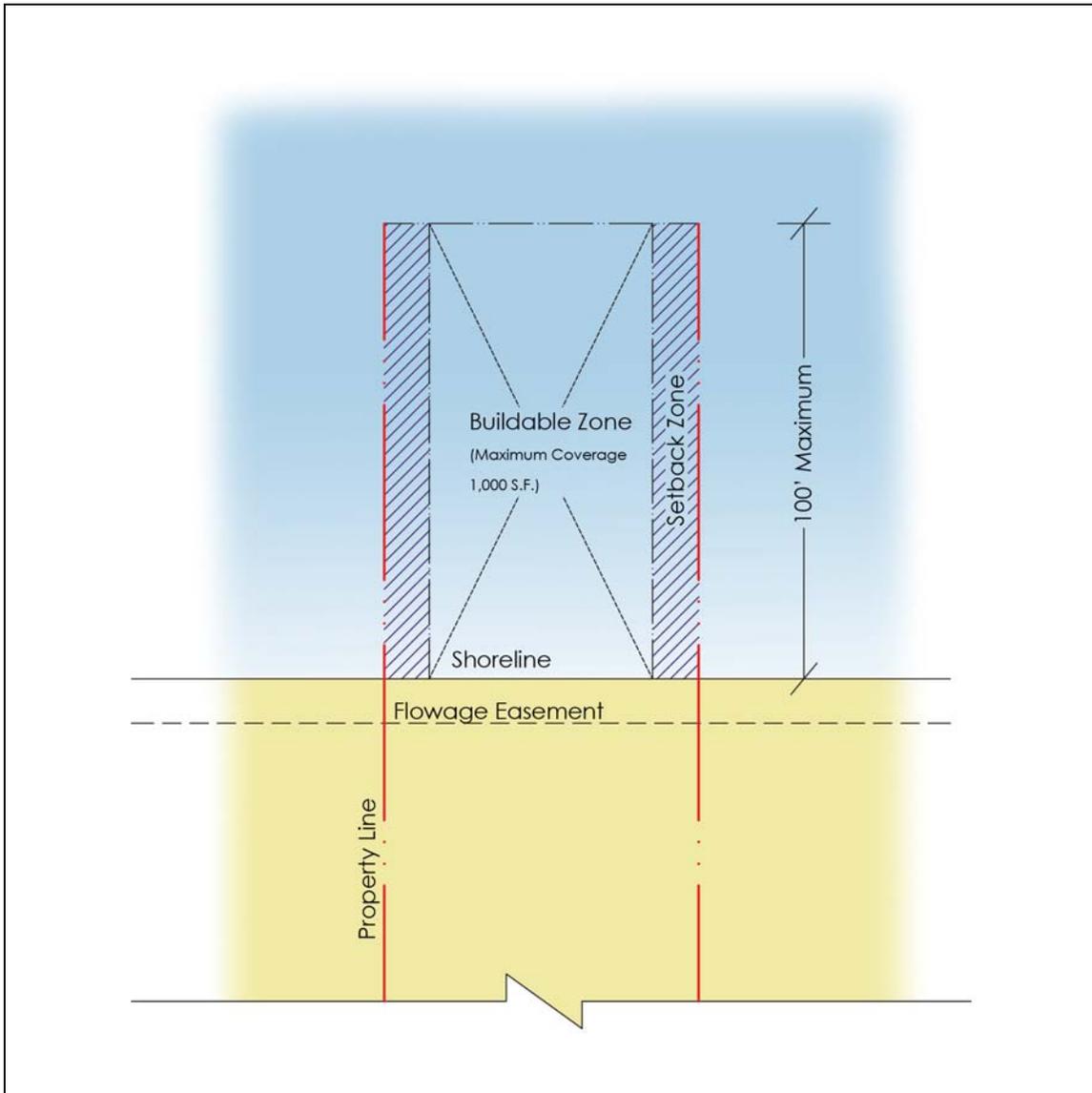


Figure 19A - Buildable Zone Width Illustration

- D. Maximum structure area. The maximum horizontal area of structures incidental to a single property (piers and/or boathouses) is 1,000 square feet.

**EXCEPTION:** For property owners that remove existing retaining walls and provide shoreline restoration; or, for property owners that elect to preserve existing natural shoreline areas, the maximum area of structures may be 1,250 square feet. Shoreline Restoration and Preservation projects must comply with the Lake Arlington Chapter.

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- E. Maximum length into the Lake. Piers and/or boathouses shall not extend into the lake more than 100 feet from the shoreline.

#### EXCEPTIONS:

1. If the elevation of the Lake bottom at the 100 foot limit is higher than 545 feet above mean sea level then the dock may extend to the point where the Lake bottom is 545 feet above mean sea level to a maximum length of 150 feet as measured from the shoreline regardless of Lake Bottom elevation. This exception may not apply in narrow areas of the reservoir.
2. In narrow areas of the reservoir (See figure 19B - Map of Narrow Areas), no structure shall occupy more than one third (1/3) of the channel width and in no case shall a structure extend out into the reservoir to a point that is more than 20 feet from the centerline of the channel. For the purposes of this provision, the channel width is measured from water's edge at the normal lake elevation of 548 feet mean sea level. See Figure 19C - Narrow Channel Illustration.
3. For property owners that remove existing retaining walls to undergo a shoreline restoration effort; or, for property owners that elect to preserve existing natural shoreline areas the maximum length of a pier may be extended to 125 feet. This exception may not apply in narrow areas of the reservoir.

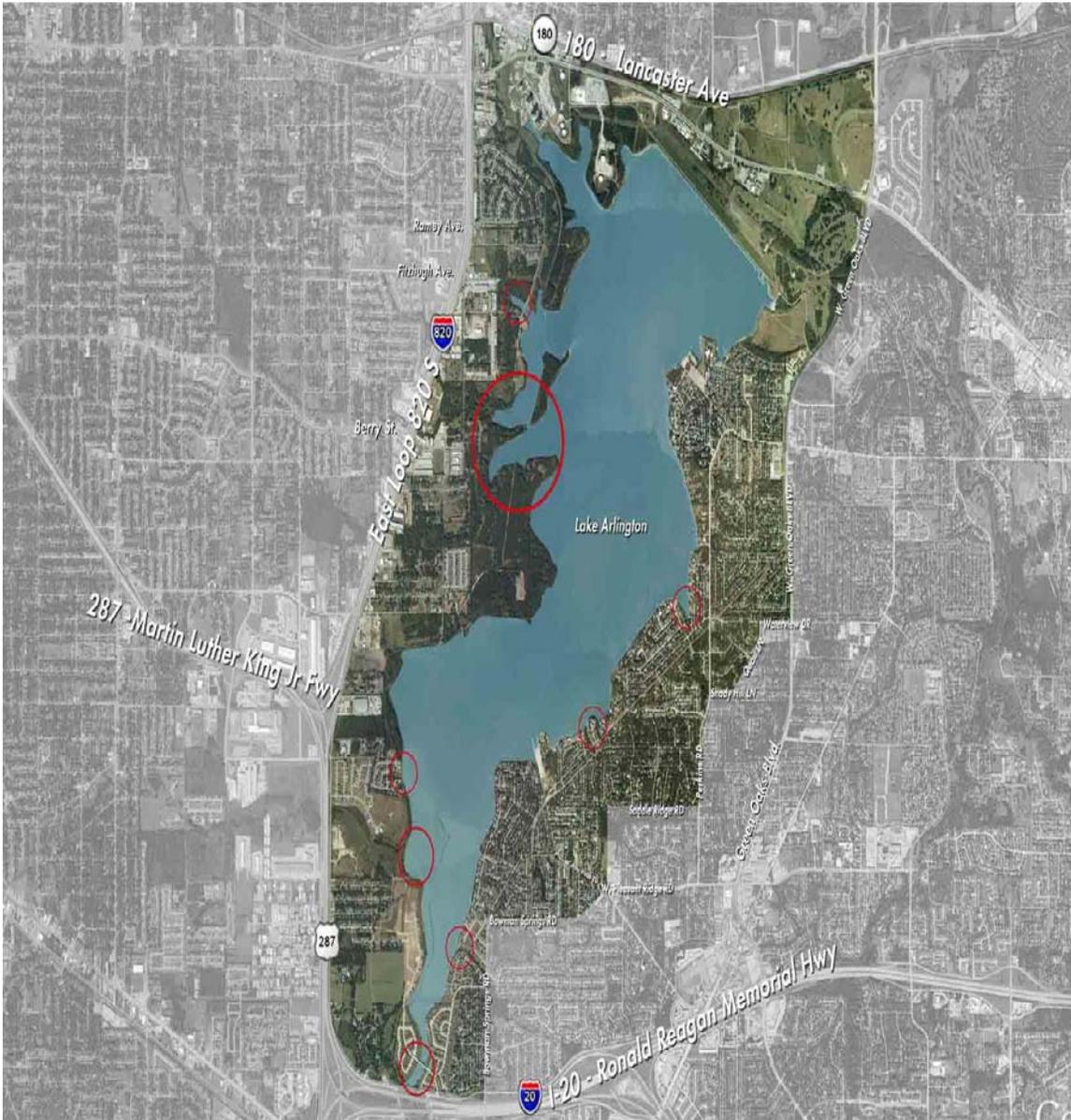


Figure 19B - Map of Narrow Areas

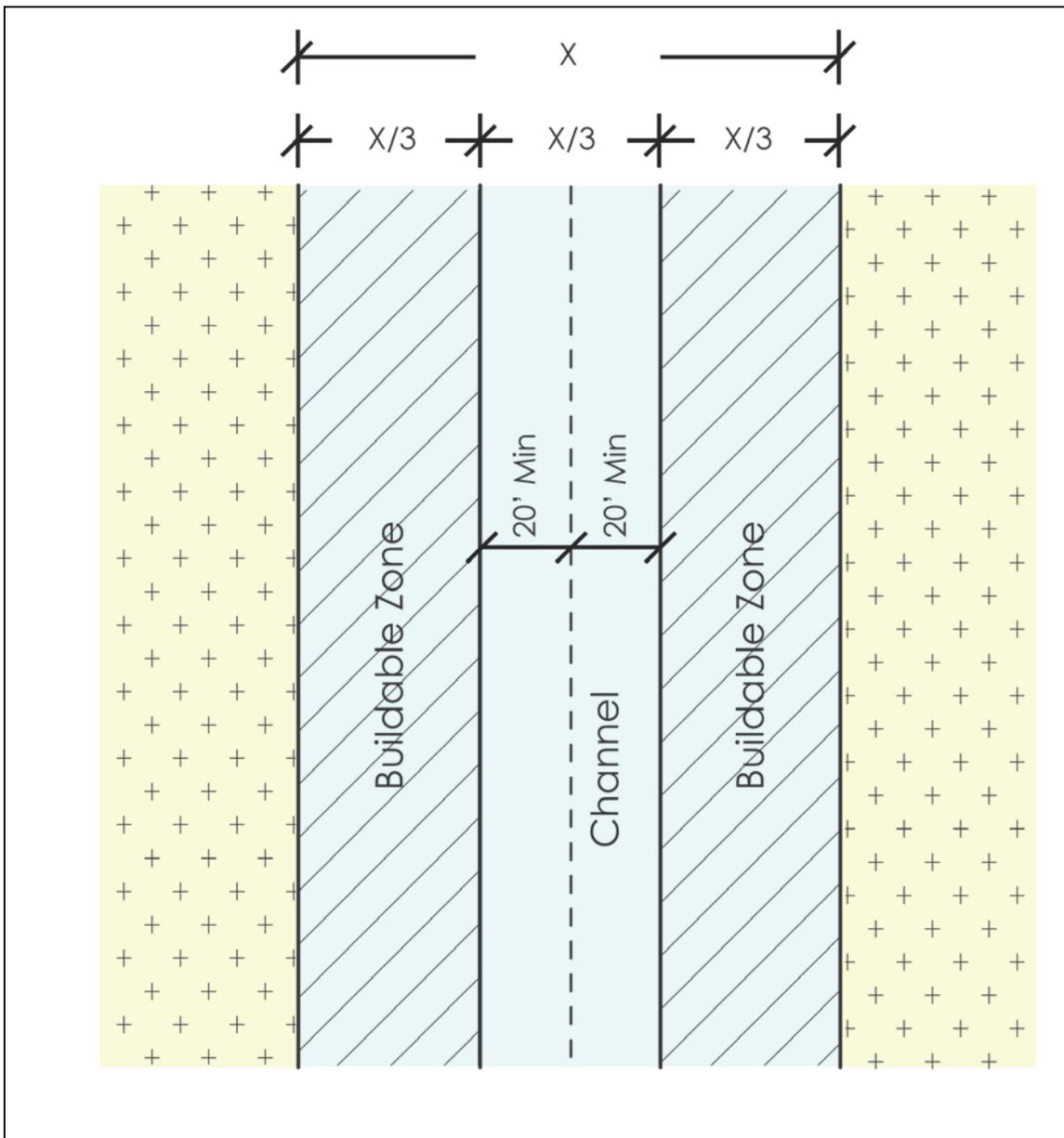


Figure 19C - Narrow Channel Illustration

- F. All piers and boathouses shall have lights in accordance with this subsection. These requirements apply to any piers and boathouses that extend into the Lake more than eight feet from a shoreline measured perpendicular to the shoreline.

1. Piers and boathouses must be continuously lighted with amber lights between sunset and sunrise each day.
  2. Piers and boathouses must have at least one light station. Except as otherwise provided in this subsection, the light station must be located on the end of the pier and/or boathouse and on the side that is farthest from and parallel to the shoreline. The light must be visible to a properly approaching watercraft.
  3. A pier or boathouse that extend thirty feet or more from the shoreline must have at least one light station on each side of the pier and/or boathouse not facing the shoreline.
  4. A pier or boathouse that extends fifty feet or more from the shoreline must have light stations from the shoreline to the end of the pier and/or boathouse at intervals of not more than twenty five feet except that a light station may not be located within eight feet of the shoreline.
  5. Each light station required by this subsection must have a two-bulb fixture with two working light bulbs between 7.5 and 25 watts. Light bulbs or covers must be amber and white light shall not radiate from the fixture. Light stations must be controlled by only a photoelectric cell to insure dusk to dawn continuous operation.
  6. All electrical wiring on any pier and/or boathouse shall be in accordance with the City of Arlington electrical code for marine applications.
  7. Other lights installed that are not required by this subsection may only cast light down and shall not cast light outward from the pier.
  8. Any pier and/or boathouse that require lights under this subsection shall provide temporary lighting during construction and until the permanent lighting is installed.
- G. Address. Each pier and/or boathouse shall have an address placard stating the street address and the street name of the primary residence associated with the structure. The address placard shall be clearly legible from the lake side of the structure. The lettering shall be a minimum of 6-inch high and be made of reflective material so that the address can be read at night. Placards shall be made of cast aluminum and be rectangular in shape.

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- H. Toilet. Toilet facilities of any type are prohibited on any boathouse or pier.
- I. Water. The installation of a potable water line shall comply with the plumbing code.
- J. Electrical. The installation of any electrical components shall comply with the electrical code.
- K. Specific design requirements for boathouses.
  - 1. Single Story. All boathouses are limited to a single story (lower deck) and a sundeck (upper deck) or roof.
  - 2. Height. The maximum height of any boathouse is thirteen feet as measured vertically from the pier walking surface to the top plate line.
  - 3. Pitch. The maximum pitch for any sloped roof is 3:12.
  - 4. Roofs. Flat roofs shall have a minimum roof pitch of 1/2:12. The upper flat roof may be constructed for use as a sundeck. When the upper deck is utilized as a sundeck, the following regulations apply:
    - a. The sundeck may not have a permanent roof or covering.
    - b. The sundeck is accessible by stairway and handrails constructed in accordance with the building code.
    - c. The sundeck area is protected with a surrounding guardrail constructed in accordance with the building code.
    - d. Except for the required guardrails, no other vertical construction is permitted on the upper deck.
  - 5. Enclosed boathouses are prohibited. Solid sides on the boathouse are permitted at a maximum of two feet downward from the top plate. No additional materials (i.e. lattice, fencing, bars, screen fabric, doors, glass, etc.) may be installed below the two foot sidewalls.
  - 6. A single enclosed storage area is permitted only on the lower deck of a boathouse. The enclosed storage area may only be used for the purpose of storing items such as fishing tackle, skis and life jackets. Products

considered hazardous material or any material which has a warning label prohibiting its use or storage near water and/or public water supplies is prohibited. The maximum area allowed for the enclosed storage shall be 32 square feet.

L. Design criteria for piers and/or boathouses.

1. The use of wood piles is prohibited;
2. Metal piles shall be a minimum of three inches inside diameter schedule 40 pipe. Such piles shall be driven by a pile hammer to a point of resistance. Such piles shall be driven in pairs, one on either side of the structure and braced. Such piles shall be spaced a maximum of twelve feet center to center.
3. Flotation structures shall be anchored with solid units that will provide the following anchorage:
  - a. All anchors shall be of masonry, concrete, or steel and shall be securely fastened to the pier or boathouse by cable, chain, or other approved methods.
  - b. All piers and boathouses shall be anchored to the shore line.
  - c. Piers less than fifty feet in length shall be anchored on each corner designed to support one-fourth of the total dead load plus one-eighth the total live load.
  - d. Piers fifty feet or more in length shall also be anchored at the midpoint of the pier.
4. Required Water Proofing: All wood below the 100-year flood elevation shall be approved pressure-preservative-treated wood as defined in the building code. All metal, including bolts, lag bolts, and fasteners, shall be galvanized or factory painted and listed for immersion in water. Creosote treated wood is prohibited. (Amend Ord 12-011, 4/3/12)
5. Floating structures and flotation. Flotation material shall be extruded polystyrene, expanded polystyrene, or a copolymer of polyethylene and polystyrene and have the following characteristics:

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- a. A minimum density of 0.9 pounds per cubic foot and be of consistent quality throughout the float.
  - b. Beads shall be firmly fused together with no voids inside the encasement.
  - c. Flotation material shall have a water absorption rate of less than 3.0 pounds per cubic foot over seven days when tested by the Hunt Absorption Test.
  - d. All flotation material shall be encased in solid polyethylene or a polyurethane type coating, both of which shall be watertight and have a nominal thickness of 0.125 inches.
  - e. Drums made of plastic or metal, whether new or recycled, are prohibited from use as an encasement or float.
  - f. All floats shall be warranted for a minimum of fifteen (15) years against sinking, becoming waterlogged, cracking, peeling, fragmenting, or losing beads, and shall not be prone to damage by animals.
- M. Shoreline Restoration and Preservation. Shoreline Restoration and Preservation shall be conducted as provided for in the Lake Arlington Chapter. (Amend Ord 11-043, 8/16/11)

**ARTICLE XX**

**PENALTY**

**20.01      Penalty**

A person who violates any provision of this Chapter by performing an act prohibited or by failing to perform an act required is guilty of a misdemeanor; each day the violation continues shall be a separate offense.

1. If the definition of an offense under this Chapter does not prescribe a culpable mental state, then a culpable mental state is not required. Such offense shall be punishable by a fine not to exceed Five Hundred Dollars and No Cents (\$500.00). Although not required, if a culpable mental state is in fact alleged in the charge of the offense and the offense governs fire safety, zoning, or public health and sanitation, including dumping of refuse, such offense shall be punishable by a fine not to exceed Two Thousand Dollars and No Cents (\$2,000.00).
2. If the definition of an offense under this Chapter prescribes a culpable mental state and the offense governs fire safety, zoning, or public health and sanitation, including dumping of refuse, then a culpable mental state is required and the offense shall be punishable by a fine not to exceed Two Thousand Dollars and No Cents (\$2,000.00).

(Amend Ord 11-043, 8/16/11)