

2013 Kentucky Building Code

Third Edition
August 2014



As Adopted by:

**KENTUCKY BOARD OF HOUSING, BUILDINGS
AND CONSTRUCTION**

Department of Housing, Buildings and Construction

**101 Sea Hero Road, Suite 100
Frankfort, Kentucky 40601-5412**

**Telephone: (502) 573-0365
FAX: (502) 573-1057**

Kentucky Information on Code Enforcement

The *Kentucky Building Code*, now in its 32nd year, is based upon *the 2012 International Building Code* published by the International Code Council, Inc., with Kentucky-specific amendments. It provides design and construction standards to ensure the public safety, health and welfare insofar as they are affected by building construction and to secure safety to life and property from all hazards incident to the occupancy of buildings, structures or premises. This edition presents the code with changes approved by the Kentucky Board of Housing, Buildings and Construction through [August](#) 2014.

The Kentucky Building Code is a “mini/maxi” code, meaning that it is a statewide, uniform, mandatory building code and no local government shall adopt or enforce any other building code governing commercial construction. The *Kentucky Residential Code* shall govern detached single family dwellings, two-family dwellings and townhouses and is adopted as 815 KAR 7:125.

The *Kentucky Building Code* may be amended by proposals from code enforcement officials, construction professionals, other interested persons, and organizations. Amendments are discussed during open meetings of affected boards and advisory committees for recommendation before final approval by the Kentucky Board of Housing, Buildings and Construction. Approved amendments are printed in the Kentucky Administrative Register and posted on the Department of Housing, Buildings and Construction website (www.dhbc.ky.gov) once enacted.

SAMPLE ORDINANCE

(CITY/COUNTY) ORDINANCE

Ordinance Number _____

AN ORDINANCE RELATING TO 815 KAR 7:120 KENTUCKY BUILDING CODE and 815 KAR 7:125 KENTUCKY RESIDENTIAL CODE, AS ADOPTED BY THE BOARD OF HOUSING, BUILDINGS AND CONSTRUCTION OF THE COMMONWEALTH OF KENTUCKY

Be it ordained by the (Governing Board) of the (Name of Jurisdiction) as follows:

WHEREAS, KRS 198B.060(1), requires that all buildings constructed in____ (City/County)_____shall be built in compliance with the uniform state building code as adopted by the Board of Housing, Buildings and Construction; and

WHEREAS, KRS 198B.060(1) authorizes any city, county or urban county government to require, by ordinance, permits, inspections and certificates of occupancy for single family dwellings; and

WHEREAS, KRS 198B.060(11) requires the local government to employ or contract for or with electrical inspection services; and

WHEREAS, KRS 198B.060(1) and 815 KAR 7:070 require a certified building inspector and other code enforcement personnel as necessary for inspection and code enforcement services;

WHEREAS, KRS 198B.060(18) authorizes each local government to establish a schedule of fees which are designed to cover the cost of the service performed but not to exceed such cost;

NOW, therefore, BE IT ORDAINED by the Fiscal County and/or legislative body of _____(City/County) _____, COMMONWEALTH OF KENTUCKY:

SECTION 1. ADOPTION OF THE KENTUCKY BUILDING CODE.

THAT, the KENTUCKY BUILDING CODE, promulgated in 815 KAR 7:120 and the KENTUCKY RESIDENTIAL CODE promulgated in 815 KAR 7:125 by the Board of Housing, Buildings and Construction, Commonwealth of Kentucky, are to be enforced by _____(City/County) _____of the Commonwealth of Kentucky as if set out at length herein;

THAT, a copy of said Kentucky Building Code and the Kentucky Residential Code is on file in the Office of the _____ County Clerk, and the Clerk shall at all times keep a copy of said building code for reference;

THAT, a copy of this Ordinance shall be transmitted to the Department of Housing, Buildings and Construction of the Commonwealth of Kentucky.

SECTION 2. DESIGNATED ENFORCEMENT OFFICER.

THAT, _____ (Department/Office)_____, shall be designated as the local enforcement agent/agency for said Kentucky Building Code. All building code inspections shall

be performed by persons certified by the Kentucky Department of Housing, Buildings and Construction. All electrical inspections shall be performed by persons certified by the Kentucky Department of Housing, Buildings and Construction as an electrical inspector.

SECTION 3. BUILDING INSPECTION PROGRAM.

THAT, pursuant to KRS 198B.060(8), a building inspection program is hereby established in _____(City/County)_____ for application to all buildings subject to 815 KAR 7:120 Kentucky Building Code.

THAT, the _____(City/County)_____ building inspection program of _____(City/County)_____ shall include plan review and inspections of structures subject to 815 KAR 7:125 Kentucky Residential Code.

SECTION 4. PERMITS AND FEES.

THAT, the fees for permits and inspections shall be as provided for in the attached schedule.

SECTION 5. INCONSISTENT ORDINANCES REPEALED.

THAT, all ordinances or parts of ordinances in conflict herewith are, to the extent of such conflict, hereby repealed.

SECTION 6. EFFECTIVE DATE.

THAT, this resolution shall take effect and be in full force when passed, published and recorded according to law.

COUNTY JUDGE/EXECUTIVE OR MAYOR

ATTEST:

CITY/COUNTY CLERK

DATE PASSED

ACKNOWLEDGEMENTS

The Commonwealth of Kentucky gratefully acknowledges the contribution of time, expertise and diligent effort generously given by members of the Kentucky Board of Housing, Buildings and Construction in the continuing development of the *Kentucky Building Code*. Current Board members are as follows:

Ambrose Wilson IV, Chairperson

Department of Housing, Buildings & Construction
Frankfort, Kentucky

Clay Barkley

Attorney General's Office
Frankfort, Kentucky

Mark A. Caldwell

Kentucky Society of Professional Engineers
Calvert City, Kentucky

Gregory G. Carter

Kentucky Society of Professional Engineers
Lexington, Kentucky

Andrew Coyle

Kentucky Housing Corporation
Frankfort, Kentucky

Debra L. Fitzgerald

Kentucky Association of Realtors
Dry Ridge, Kentucky

Lisa Marsh Flara

Kentucky Society of Professional Engineers
Lexington, Kentucky

Kathy Fowler

Public Health
Frankfort, Kentucky

Tod Allan Griffin

Kentucky Retail Federation
Frankfort, Kentucky

David Dean

Associated General Contractors of Kentucky
Winchester, Kentucky

William M. "Mac" Crawford, Jr.

Home Builders Association of Kentucky
Nicholasville, Kentucky

Robert R. Johnson

Building & Construction Trade Council
Lexington, Kentucky

Robert J. Kirchdorfer

Code Administrators Association of Kentucky
Louisville, Kentucky

Kevin R. McGuire

Kentucky Society of Architects
Lexington, Kentucky

Dennis T. Meiman, Jr.

Mechanical Contractors Association
Louisville, Kentucky

Russell E. Todd

Kentucky Firefighters Association
Elizabethtown, Kentucky

Tyrone D. Tyra

Citizen at Large
Lexington, Kentucky

Steve Willinghurst

National Electrical Contractors Association
Louisville, Kentucky

Greg J. Wilson

KAPHCC
Louisville, Kentucky

G. Davis Boland

Kentucky Building Materials Association
Louisville, Kentucky

Jim A. Jackson

Citizen At-Large
Frankfort, Kentucky

CHAPTER 1
SCOPE AND ADMINISTRATION 1

Section

101 General 1

102 Applicability 2

103 Department of Housing, Buildings and Construction. 2

104 Duties and Powers of Building Official 2

105 Permits 4

107 Submittal Documents 5

108 Temporary Structures and uses 6

109 Fees 6

110 Inspections..... 6

111 Certificate of Occupancy 7

112 Service Utilities 7

113 Board of Appeals 7

114 Violations 8

115 Stop Work Order 9

116 Unsafe Structures and Equipment 9

117 Cabinet for Health and Family Services (CHFS)
Regulated Buildings 9

118 Proof of Insurance 9

119 Posting Structures 9

120 Effective Dates 9

121 Plan Review and Inspection Fees for Department of
Housing, Buildings and Construction 9

122 Licensed Design Professionals 11

CHAPTER 2
DEFINITIONS 13

Section

201 General 13

202 Definitions 13

CHAPTER 3 USE AND OCCUPANCY
CLASSIFICATION 17

Section

303 Assembly Group A 17

304 Business Group B 17

305 Educational Group E 18

307 High Hazard Group H 18

308 Institutional Group I 18

310 Residential Group R 18

CHAPTER 4
SPECIAL DETAILED REQUIREMENTS BASED ON USE
AND OCCUPANCY 20

Section

405 Underground Buildings 20

407 Groups I-1 and I-2 20

408 Group I-3 20

415 Groups H-1, H-2, H-3, H-4 and H-5 21

425 Day Care Centers 21

426 Bed and Breakfast Establishments 24

427 Subterranean Spaces 24

428 Barreled Spirit Storage Buildings 24

429 Consumer Fireworks Retail Sales Facilities 26

430 Temporary Structures 26

CHAPTER 5
GENERAL BUILDING HEIGHTS AND
AREAS 33

Section

503 General Building and Height Limitations 33

506 Building Area Modifications 33

507 Unlimited Area Buildings 33

510 Special Provisions 33

CHAPTER 7
FIRE RESISTANCE RATED
CONSTRUCTION 34

Section

703 Fire Resistance Ratings and Fire Tests 34

706 Fire Walls 34

718 Concealed Spaces 34

CHAPTER 9
FIRE PROTECTION SYSTEMS 35

Section

901 General 35

903 Automatic Sprinkler Systems 35

904 Alternative Automatic Fire-Extinguishing Systems . 37

905 Standpipe Systems 37

907 Fire Alarm and Detection Systems 37

909 Smoke Control Systems 39

910 Smoke and Heat Removal 40

912 Fire Department Connections 40

913 Fire Pumps 40

916 Yard Hydrants 40

CHAPTER 10
MEANS OF EGRESS 41

Section

1004 Occupant Load 41

1006 Means of Egress Illumination 42

1008 Doors, Gates and Turnstiles 42

1009 Stairways 43

1010 Ramps 43

1012 Handrails 43

1013 Guards 44

1016 Exit Access Travel Distance 45

1018 Corridors 45

1021 Number of Exits and Exit Configuration 45

1022 Interior Exit Stairways and Ramps 46

1027 Exit Discharge 46

1028 Assembly 46

1029 Emergency Escape and Rescue 47

CHAPTER 11
ACCESSIBILITY 48

Section

1103 Scoping Requirements 48

1104 Accessible Route 48

1106 Parking and Passenger Loading Facilities 48

1109 Other Features and Facilities 49

CHAPTER 12	
INTERIOR ENVIRONMENT.....	50
Section	
1203 Ventilation.....	50
1206 Yards or Courts	50
1209 Access to Unoccupied Spaces	50
1210 DELETED FROM IBC	50
CHAPTER 14	
EXTERIOR WALLS	51
Section	
1410 Window-cleaning Safeguards.....	51
CHAPTER 15	
ROOF ASSEMBLIES AND ROOFTOP STRUCTURES...	52
Section	
1503 Weather Protection.....	52
1507 Requirements for Roof Coverings.....	52
CHAPTER 16	
STRUCTURAL DESIGN.....	53
Section	
1601 General	53
1602 Definitions and Notations.....	53
1603 Construction Documents	53
1604 General Design Requirements.....	53
1605 Load Combinations	53
1607 Live Loads.....	53
1608 Snow Loads	54
1609 Wind Loads	55
1611 Rain Loads.....	56
1612 Flood Loads.....	58
1613 Earthquake Loads.....	58
1614 Atmospheric Ice Loads.....	61
CHAPTER 17	
SPECIAL INSPECTIONS AND TESTS.....	64
Section	
1704 Special inspections, Contractor Responsibility and Structural Observations	64
1705 Required Verification and Inspection.....	65
1709 In-Situ Load Tests	67
1710 Preconstruction Load Tests	67
CHAPTER 18	
SOILS AND FOUNDATIONS.....	68
Section	
1801 General	68
1803 Geotechnical Investigations	68
1804 Excavation, Grading and Fill.....	68
1807 Foundation Walls, Retaining Walls and Embedded Posts and Poles	68
1809 Shallow Foundations	68
1810 Deep Foundations	69
CHAPTER 19	
CONCRETE	71
Section	
1910 Shotcrete.....	71
CHAPTER 21	
MASONRY.....	72
Section	
2113 Masonry Chimneys	72
CHAPTER 22	
STEEL	73
Section	
2207 Steel Joists.....	73
2209 Steel Storage Racks.....	73
2211 Cold-formed Steel Light- Frame Construction	73
CHAPTER 23	
WOOD.....	74
Section	
2303 Minimum Standards and Quality.....	74
2308 Conventional Light-Frame Construction.....	74
CHAPTER 24	
GLASS AND GLAZING.....	76
Section	
2403 General Requirements for Glass.....	76
2404 Wind, Snow, Seismic and Dead Loads on Glass....	76
CHAPTER 27	
ELECTRICAL	77
Section	
2701 General	77
2702 Emergency and Standby Power Systems.....	77
2703 Permit and Certificate of Inspection.....	77
2704 Inspections and Tests.....	77
CHAPTER 28	
MECHANICAL SYSTEMS	78
Section	
2801 General	78
CHAPTER 29	
PLUMBING SYSTEMS.....	79
Section	
2901 General	79
2902 Minimum Plumbing Facilities	79

CHAPTER 30	
ELEVATORS AND CONVEYING SYSTEMS	80
Section	
3001 General	80
3009 Power Elevator Operation	80
3010 Stairway Chair-Lifts and Wheelchair Lifts	80
3011 Maintenance and Accidents.....	80
3012 Construction Documents and Permits	81
3013 Certificate of Compliance	81
CHAPTER 31	
SPECIAL CONSTRUCTION.....	82
Section	
3107 DELETED FROM IBC	82
3108 Telecommunication and Broadcast Towers	82
3109 Swimming Pools	82
CHAPTER 33	
SAFEGUARDS DURING CONSTRUCTION	87
Section	
3305 Sanitary	87
CHAPTER 34	
EXISTING STRUCTURES.....	88
Section	
3401 General	88
3403 Additions	88
3405 Repairs	88
3409 Historic Buildings	88
3412 Compliance Alternatives	88
CHAPTER 35	
REFERENCED STANDARDS	89

CHAPTER 1
SCOPE AND ADMINISTRATION

SECTION 101
GENERAL

101.1 Title. These regulations shall be known as the *Kentucky Building Code*, hereinafter referred to as “this code.”

101.2 Scope. The provisions of the *Kentucky Building Code* shall apply to the construction, *alteration*, relocation, enlargement, replacement, *repair*, equipment, use and occupancy, location, maintenance and removal of every *building* or *structure* or any appurtenances connected or attached to such *buildings* or *structures*, whether hereafter erected or, where expressly stated in this code, existing; and whether on land, over water, or on water, *permanently* moored to land, and substantially a land *structure*.

Exceptions:

1. *Farm dwellings* and other *buildings*. *Farm dwellings* and other *buildings* and *structures* located on farms which are incident to the operation of the farm and located outside the boundary of a municipality; but only if they are not used in the business of retail trade, as a regular place of work for 10 or more people or for the processing or storage of timber products.
2. *Manufactured homes*. *Manufactured homes* constructed under federal HUD standards. However, the exterior electric, water and sewer connections and *additions* to the home are not exempt.
3. *Dwelling units*. Detached one- and two-family *dwellings* and multiple *single-family dwellings* (*townhouses* not more than three stories above *grade plane* in height with separate *means of egress*) and their accessory *structures* shall comply with the Kentucky Residential Code, except that, *permits*, inspections and certificates of occupancy are required only as set forth in local ordinances for single family *dwellings* per KRS 198B.060.
4. *Swimming pools*. *Swimming pools* constructed completely above *grade*.

101.2.1 Special religious use group. Upon application by a religious group whose religious beliefs would be violated by the application of the *Kentucky Building Code*, *Kentucky Residential Code*, *Kentucky Plumbing Code* or any of the standards referenced therein, the *Department of Housing, Buildings and Construction* may place the affected *building* into the “Special Religious Use” group and waive any requirement of the *Kentucky Building Code*, the *Kentucky Residential Code*, the *Kentucky Plumbing Code* or any referenced standard. The *Department of Housing, Buildings and Construction* may place a project into the Special Religious Use Group only if it finds after a hearing that:

1. The religious group applying for the waiver exists for spiritual and religious purposes and was not formed solely to request this waiver;
2. The religious group’s belief system conflicts with a requirement of the *Kentucky Building Code*, *Kentucky Residential Code*, *Kentucky Plumbing Code* or referenced standard;
3. The religious group can demonstrate that the portion of its belief system which conflicts with the *Kentucky Building Code*, *Kentucky Residential Code*, *Kentucky Plumbing Code*, or referenced standard is historical and not created solely in response to the project for which the waiver is being requested;
4. The waiver is not being requested solely for economic, aesthetic or convenience reasons;
5. The waiver would not create a situation so unsafe that there is an overriding interest in protecting the health and safety of the general public; and
6. The religious group has taken adequate steps to ensure the project will be brought up to code in the event the religious group no longer owns the *building* or otherwise no longer qualifies for the waiver.

101.3 Intent. The purpose of this code is to establish the minimum/maximum requirements to safeguard the public health, safety and general welfare through structural *strength*, *means of egress* facilities, stability, sanitation, adequate light and *ventilation*, energy conservation, and safety to life and property from fire and other hazards attributed to the built environment; and to provide safety to fire fighters and emergency responders during emergency operations. No local government shall adopt or enforce any other *building* code; except that the *Kentucky Residential Code* shall govern detached single family *dwellings*, two-family *dwellings* and *townhouses*.

101.4.1 Electrical. The provisions of NFPA 70 shall apply to the installation of electrical systems, including *alterations*, *repairs*, replacement, equipment, appliances, fixtures, fittings and appurtenances thereto. The inspection of electrical installations shall be performed by a Certified Electrical Inspector pursuant to 815 KAR 35:015.

101.4.2 Gas. The provisions of NFPA 54, National Fuel Gas Code, shall apply to the installation of gas piping from the point of delivery, gas appliances and related accessories as covered in this code. These requirements apply to gas piping systems extending from the point of delivery to the inlet connections of appliances and the installation and operation of residential and commercial gas appliances and related accessories.

101.4.3 Mechanical. The provisions of the *International Mechanical Code* shall apply to the installation, *alterations*, *repairs*, and replacement of *mechanical systems*, including equipment, appliances, fixtures,

fittings and/or appurtenances, including ventilating, heating, cooling, air-conditioning and refrigeration systems, incinerators, and other energy-related systems.

101.4.4 Plumbing. The provisions of the Kentucky State Plumbing Code shall apply to the installation, *alteration*, *repair* and replacement of plumbing systems, including equipment, appliances, fixtures, fittings and appurtenances, and where connected to a water or sewage system and all aspects of a medical gas system. All plumbing installations shall be installed under the supervision of a Kentucky Licensed Master Plumber, and inspected and *approved* by the state plumbing inspector prior to usage.

101.4.5 Fire protection. The provisions of the *International Fire Code* shall apply to matters affecting or relating to new construction in *buildings* where specifically referenced in this code, only.

101.4.6 Energy. The provisions of the 2012 *International Energy Conservation Code (with Kentucky amendments)* shall apply to all matters governing the design and construction of *buildings* for energy efficiency.

101.5 Fire safety authority. The State Fire Marshal and the local fire code *official* shall continue to be the authority having *jurisdiction* for enforcement of the *Kentucky Standards of Safety (815 KAR 10:060)* in existing *buildings* not regulated by this code, and for continued fire safety maintenance in *buildings* constructed and *approved* under this code.

SECTION 102 APPLICABILITY

102.2 Other laws. The provisions of this code shall not be deemed to nullify any provisions of state or federal law. Other local or state law shall be consulted to determine the existence of other powers given to the code *official*, such as those related to demolition or authority over unsafe *structures* unless a change of occupancy as required by Chapter 34 is made or proposed. Otherwise, this code shall not be cited as authority for upgrading *existing structures* which are not under construction.

102.4.1 Conflicts. Where conflicts occur between provisions of this code and state law, the provisions of state law shall apply. Where conflicts occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.

102.4.2 Provisions in referenced codes and standards. Where the extent of the reference to a referenced code or standard includes subject matter that is within the scope of this code or the Codes *listed* in Section 101.4, the provisions of this code or the Codes *listed* in Section 101.4, as applicable, shall take precedence over the provisions in the referenced code or standard.

102.6 Existing structures. The legal occupancy of any *structure* existing on the date of adoption of this code shall be permitted to continue without change, except as is specifically covered in this code, the *Kentucky Standards of Safety (815 KAR 10:060)*, or as is deemed necessary by the

building official for the general safety and welfare of the occupants and the public. Application of this code to existing *buildings* shall apply as required by Section 3401 when *alterations*, *additions* or changes of occupancy as set forth in Chapter 34 of this code are proposed or occur.

102.6.1 Moved structures. *Buildings* and *structures* moved into or within the Commonwealth shall comply with the provisions of this code for new *buildings* and *structures* and shall not be used or occupied until the certificate of occupancy, if required, has been issued by the code *official*. This provision does not apply to *manufactured homes*.

Exception: Industrialized *buildings* moved into or within the *jurisdiction* meeting the requirements of Chapter 16 of this code.

SECTION 103 DEPARTMENT OF HOUSING, BUILDINGS AND CONSTRUCTION

103.1 Creation of Authority. The *Department* of Housing, *Buildings* and *Construction* shall carry out all duties and authority as granted in KRS Chapters 198B, 227, 227A, 234, 236 and 318.

103.2 Appointment. The *building official* shall be certified as required by law and be appointed by the appointing authority.

103.3 Certified inspectors. The local government shall provide at least one Kentucky Certified *Building Inspector*, Level I, pursuant to 815 KAR 7:070 and employ or contract with a certified electrical inspector in accordance with KRS 198B.060 (1) and (11). The local government shall report the name of all inspectors to the *Department* and the *Department* shall be notified of any changes in inspector personnel.

SECTION 104 DUTIES AND POWERS OF BUILDING OFFICIAL

104.2 Applications and permits. The *code official* shall receive applications, review *construction documents* and issue *permits* for the erection, *alteration* and moving of *buildings* and *structures*; inspect the premises for which such *permits* have been issued; and enforce compliance with the provisions of this code.

104.7 Department records. The *code official* shall keep *official* records of applications received, *permits* and certificates issued, fees collected, reports of inspections, and notices and orders issued. Such records shall be retained in the *official* records for the period required for retention of public records as promulgated by the *Kentucky Department of Libraries and Archives* pursuant to KRS 171.450.

104.10 Modifications. Wherever there are practical difficulties involved in carrying out the provisions of this code, the *building official* shall have the authority to grant modifications for individual cases, upon application of the *owner* or *owner's* representative, provided the *building official* shall first find that special individual reason makes the strict letter of this code impractical and the modification is in compliance with the intent and purpose of this code and

that such modification does not lessen health, accessibility, life and fire safety, or structural requirements. The details of action granting modifications shall be recorded and entered in the files of the authority having *jurisdiction*.

104.11.2 Tests. Whenever there is insufficient evidence of compliance with the provisions of this code, or evidence that a material or method does not conform to the requirements of this code, or in order to substantiate claims for alternative materials or methods, the *building official* shall have the authority to require tests as evidence of compliance to be made at no expense to the *jurisdiction*. Test methods shall be as *specified* in this code or by other recognized test standards. In the absence of recognized and accepted test methods, the *building official* shall approve the testing procedures. Tests shall be performed by an *approved* agency. Reports of such tests shall be retained by the *building official* for the period required for retention of public records as promulgated by the Kentucky *Department* of Libraries and Archives pursuant to KRS 171.450.

104.12 Rule-making-authority. By means of the *Board's* appeals procedures, the *Board* may issue interpretations which shall be binding upon the Appellee and the code *official*. The code *official* shall implement the provisions of this code to secure its intent as determined by the *Board*.

104.13 Nonstructural repairs. Nonstructural *alterations*, or *repairs* which do not adversely affect a structural member having a required *fire-resistance rating*, may be made with the same materials of which the *structure* was constructed.

104.14 Building size includes fire wall. To determine plan review *jurisdiction* and whether a *licensed design professional* is required, the calculation of the total square footage and *occupant load* for a project shall include *areas* on both sides of *fire walls*.

104.15 Local plan review and inspection jurisdiction. The local code *official*, having minimum Kentucky Building Inspector Certification of Level I, shall be responsible for the examination and approval of plans and specifications and the inspections necessary to determine compliance for *buildings* as *listed* in this section. The determination of *jurisdiction* shall be based upon *occupant load* calculations in accordance with Section 1004 of this code.

104.15.1 Assembly occupancies. All *buildings* classified as assembly occupancies, except churches as indicated in Section 104.15.3, having a capacity which does not exceed 100 *persons*.

104.15.2 Business occupancies. All *buildings* classified as business occupancies having a capacity that does not exceed 100 *persons*.

104.15.3 Churches. All *buildings* used for religious or religious fellowship purposes, including family life centers, having a capacity of 400 *persons* or less; or all *buildings* used for religious or religious fellowship purposes, including family life centers, having 6,000 square feet (558 m²) or less of total *floor area*.

104.15.4 Factory or industrial occupancies. All *buildings* classified as factory or industrial occupancies

having a capacity that does not exceed 100.

104.15.5 Mercantile occupancies. All *buildings* classified as mercantile occupancies having a capacity that does not exceed 100 *persons*.

104.15.6 Residential, storage or utility occupancies. All *buildings* classified as residential, storage or utility occupancies as long as the *buildings* do not exceed three stories in height or 20,000 square feet (1860 m²) or less of total *floor area*.

104.15.7 Mixed Occupancies. All *buildings* containing more than one occupancy with a total *occupant load* that does not exceed 100.

104.15.8 State owned property. *Buildings* owned by or built on property owned by the Commonwealth shall not be subject to local plan review, inspection or approval, regardless of size, *occupant load* or occupancy classification.

104.16 State jurisdiction. The *Department* shall have *jurisdiction* to review *construction documents*, issue *permits*, and make inspections to determine compliance with this code for the *buildings listed* in Sections 104.16.1 through 104.16.9 and all *buildings*, except *dwelling*s subject to the *Kentucky Residential Code (815 KAR 7:125)*, where no local *building inspection program* exists as required by Section 104.15 of this code.

104.16.1 Assembly occupancies. All *buildings* classified as assembly occupancies having a capacity in excess of 100 *persons*, except church *buildings* used for religious or religious fellowship purposes, including family life centers having a capacity of 400 or less *persons*; or church *buildings* used for religious or religious fellowship purposes, including family life centers, having 6,000 square feet (558 m²) or less of total *floor area*.

104.16.2 Business occupancies. All *buildings* classified as business occupancies having a capacity in excess of 100 *persons*.

104.16.3 Educational, high-hazard or institutional occupancies. All *buildings* classified as educational, high-hazard or institutional occupancies regardless of occupant capacity or *building size*.

104.16.4 Factory or industrial occupancies. All *buildings* classified as factory or industrial occupancies having a capacity in excess of 100 *persons*.

104.16.5 Industrialized building systems. All *buildings* classified as industrialized *building systems* regardless of occupancy size or occupancy classification.

104.16.6 Mercantile occupancies. All *buildings* classified as mercantile occupancies having a capacity in excess of 100 *persons*.

104.16.7 Other occupancies. All other *buildings* containing in excess of three stories or 20,000 square feet (1858 m²) of total *floor area*.

104.16.8 Mixed Occupancies. All *buildings* containing more than one occupancy with a total *occupant load* that

exceeds 100.

104.16.9 State owned property. *Buildings* owned by or built on property owned by the Commonwealth regardless of occupancy classification or size.

SECTION 105 PERMITS

105.1 Required. Any *owner* or authorized agent who intends to construct, enlarge, remodel or change the occupancy of a *building*, or to erect, install, enlarge, alter, *repair*, remove, convert or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by this code, or to cause any such work to be done, shall first make application to the *building official* and obtain the required *permit*.

105.2 Work exempt from permit. Exemptions 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 of this *jurisdiction*. *Permits* shall not be required for the following:

Building:

1. One-story detached accessory *structures* used as tool and storage sheds, playhouses and similar uses, provided the *floor area* does not exceed 120 square feet (11.15 m²).
2. Fences not over 7 feet (2134 mm) high.
3. Oil derricks.
4. Retaining *walls* which are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the *wall*, unless supporting a surcharge or impounding Class I, II or IIIA *liquids*.
5. Water tanks supported directly upon *grade* if the capacity does not exceed 5,000 gallons (18 930 L) and the ratio of height to diameter or width does not exceed 2 to 1.
6. Sidewalks and driveways not more than 30 inches (762 mm) above adjacent *grade*, and not over any *basement* or *story* below, and are not part of an *accessible route*.
7. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
8. *Temporary* motion picture, television and theater stage sets and scenery.
9. Prefabricated *swimming pools* accessory to a group R-3 occupancy, as applicable in Section 101.2, which are installed entirely above ground.
10. Shade *cloth structures* constructed for nursery or agricultural purposes and not including service systems.
11. Swings and other playground equipment accessory to detached one- and two-family *dwellings*.
12. Window *awnings* in Group R-3 and U occupancies

supported by an *exterior wall* that do not project more than 54 inches (1373 mm) from the *exterior wall* and do not require *additional* support.

13. Nonfixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches (1753 mm) in height.

Electrical:

Repairs and maintenance: Minor *repair* work, including the replacement of lamps or the connection of *approved* portable electrical equipment to *approved permanently* installed receptacles.

Radio and television transmitting stations: The provisions of this code shall not apply to electrical equipment used for radio and television transmissions.

Temporary testing systems: A *permit* shall not be required for the installation of any *temporary* system required for the testing or servicing of electrical equipment or apparatus.

Gas:

1. Portable heating appliance.
2. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.

Mechanical:

1. Portable heating appliance.
2. Portable *ventilation* equipment.
3. Portable cooling unit.
4. Steam, hot or chilled water piping within any heating or cooling equipment regulated by this code.
5. Replacement of any part which does not alter its approval or make it unsafe.
6. Portable evaporative cooler.
7. Self-contained refrigeration system containing 10 pounds (4.54 kg) or less of refrigerant and actuated by motors of 1 horsepower (746 W) or less.

Plumbing:

1. The stopping of leaks in drains, water, soil, waste or vent. If any concealed trap, drainpipe, water, soil, waste or vent pipe becomes defective necessitating the removal and replacement of 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.
2. 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.

105.3 Application for permit. To obtain a *permit*, the applicant shall first file an application in writing on a form furnished by the *authority having jurisdiction* for that purpose. Such application shall:

1. Identify and describe the work to be covered by the *permit* for which application is made.
2. Describe the land on which the proposed work is to be done by legal description, street address or similar description that will readily identify and definitely locate the proposed *building* or work. New *buildings* or *additions* shall be accompanied by a copy of the current *site* survey bearing the seal and signature of a Kentucky Licensed Land Surveyor, except the *building official* may, at the *official's* discretion, accept other proof of location.
3. Indicate the use and occupancy for which the proposed work is intended.
4. Be accompanied by *construction documents* and other information as required in Section 107.
5. Be signed by the applicant, or the applicant's authorized agent.
6. Give such other data and information as required by the *code official*.

Note: Number 7 of IBC is hereby deleted as redundant.

105.8 Local permit limitation. Local *permits* shall not be issued for *buildings* subject to state plan review *jurisdiction* in accordance with Section 104.16 until the *Department* has *approved* construction to begin.

SECTION 107 SUBMITTAL DOCUMENTS

107.1 Submittal documents. One set of *construction documents*, statement of *special inspections* and other data shall be submitted with each application for a *permit*. *Additional* plans and documents may be required by the Kentucky Division of Plumbing or by local ordinance for *buildings* under local plan review *jurisdiction*. *Construction documents* requiring a licensed *design professional* and all *construction documents* required for a *building permit* application shall bear the required signature and seal of the *licensed design professional*. (See Section 122 of this chapter). Where special conditions exist, the *code official* is authorized to require *additional construction documents* to be prepared by a *licensed design professional*.

Exceptions:

1. Seals of *licensed design professionals* shall not be required for tenant space *alterations* unless the space itself is of a size that would require the *licensed design professional* seals if it were a new *building*.
2. The *code official* is authorized to waive the submission of *construction documents* and other data not required to be prepared by a licensed *design professional* if it is found that the nature of the work applied for is such that reviewing of *construction documents* is not necessary to obtain compliance with this code.

107.2 Construction documents. *Construction documents* shall be in accordance with Sections 107.2.1 through 107.2.5.

107.2.3 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 and R-3 as applicable in Section 101.2 and I-1, the construction documents shall designate the number of occupants to be accommodated on every floor, and in all rooms and spaces.

107.3.1 Approval of construction documents. *Construction documents* shall be *approved*, in writing or by stamp, as "Reviewed for Code Compliance" or "Released for Construction." The *construction documents* that have been *approved* or released for construction shall be kept at the *site* of work and shall be open to inspection by the *building official* or his or her authorized representative.

107.3.4 Licensed design professional in responsible charge. When it is required that documents be prepared by a *licensed design professional*, the *code official* shall be authorized to require the *owner* to engage and designate on the *building permit* application a *licensed design professional* who shall act as the *licensed design professional* in responsible charge. If the circumstances require, the *owner* shall designate a substitute *licensed design professional* in responsible charge who shall perform the duties required of the *official licensed design professional* in responsible charge. The *building official* shall be notified in writing by the *owner* if the *licensed design professional* in responsible charge is changed or is unable to continue to perform the duties.

The *licensed design professional* in responsible charge shall be responsible for reviewing and coordinating submittal documents prepared by others, including phased and deferred submittal items for compatibility with the design of the *building*.

Where *structural observation* is required by Section 1709, the statement of *special inspections*, shall name the individual or firms who are to perform *structural observation* and describe the stages of construction at which *structural observation* is to occur. See also duties *specified* in Section 1704.

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

Deferral of any submittal items shall have the prior approval of the *code official*. The *licensed design professional* in responsible charge shall list the deferred submittals on the *construction documents* for review by the *code official*.

Documents for deferred submittal items shall be submitted to the *licensed design professional in responsible charge* who shall review them and forward them to the *code official* with a notation indicating that the deferred submittal documents have

been reviewed and that they have been found to be in general conformance to the design of the *building*. The deferred submittal items shall not be installed until their design and submittal documents have been approved by the *code official*.

107.3.4.2 Seismic licensed design professional in responsible charge. When Sections 107.1 and 122.1 require *construction documents* to be prepared by a *licensed design professional*, the *licensed design professional in responsible charge* shall provide on or with the initial application documents presented to the *building official* the seismic design category, design loads and other information pertinent to the structural design required by Section 1603 and 1621. If the *licensed design professional* determines that the *building* or any component part thereof is exempt from any of the seismic construction provisions of this code, a statement to that effect shall be included with the initial application documents presented to the *building official*.

107.5 Retention of construction documents. The *building official* shall retain approved *construction documents* as promulgated by the Kentucky Department of Libraries and Archives pursuant to KRS 171.450.

SECTION 108 TEMPORARY STRUCTURES AND USES

108.3 Temporary power. Pursuant to 815 KAR 35:015, the certified electrical inspector having *jurisdiction* is authorized to allow temporary supply and use power in part of an electrical installation before such installation has been fully completed and the final certificate of completion has been issued. The part covered by the *temporary certificate* shall comply with the requirements *specified for temporary lighting, heat or power* in the National Electric Code as referenced herein.

SECTION 109 FEES

109.1 Payment of fees. A *permit* or letter of permission to begin construction shall not be valid until the fees prescribed by the authority having *jurisdiction* has been paid, nor shall an amendment to a *permit* be released until the *additional fee*, if any, has been paid.

109.2 Work commencing before permit issuance. Any *person* who commences any work on a *building, structure, electrical, gas, mechanical or plumbing system* before obtaining the necessary *permits* may be subject to penalties established in KRS Chapters 198B, 227, 227A, 234, 236 and 318. The *additional fee* shall be in *addition to and equal to* the amount of the original fee but not less than \$500.

109.3 Related fees. The payment of the fee for the construction, *alteration* or removal of work done in connection to or concurrently with the work authorized by a *building permit* shall not relieve the applicant or holder of the *permit* from the payment of other fees that are prescribed by law.

109.4 Refunds. The *building official* is authorized to

establish a refund policy.

Note: Section 109.5 and 109.6 of the IBC are hereby deleted.

SECTION 110 INSPECTIONS

110.3.1 Footing or foundation inspection. Footing and foundation inspections are appropriate 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 approval. Materials for the foundation shall be on the job.

Exception: Where *concrete* is ready mixed in accordance with ASTM C 94, the *concrete* need not be on the job.

110.3.6 Fire-resistant penetrations. Protection of *joints* and penetrations in fire-resistance-rated assemblies shall not be concealed from view until inspected and *approved*.

110.3.8 Other inspections. In *addition to* the inspections *specified* in Sections 110.3.1 through 110.3.7, 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 *jurisdiction* having authority.

110.5.1 Request for final inspection. Upon completion of the *building*, the *owner* or agent of the *facility* shall request a final inspection. The *code official* shall set a time for the inspection and notify the *owner* or agent. If substantial compliance with the *approved construction documents* and *permit* has been achieved, a certificate of occupancy shall be issued, as described in Section 111. If compliance has not been achieved, violations of the *approved construction documents* and *permit* shall be noted and immediately communicated to the *owner, agency or other person* holding the *permit* and the fire *code official*. Corrections to any deficiencies noted upon inspection shall be the responsibility of the owner or permit holder.

110.7 Industrialized building system inspections. The inspection of all *buildings* classified as industrialized *building* systems, regardless of size or occupancy classification shall be in accordance with this section.

110.7.1 Off-site construction: In-plant inspections in production and manufacturing facilities for industrialized *building* systems as well as on-site inspection for all industrialized *building* systems, except those classified as detached one- and two-family *dwelling*s as indicated in Section 109.7.2, shall be conducted by the *Department* or its authorized agent. The *code official* shall be responsible for inspection of these systems for zoning, water supply and sewage disposal, and other applicable local ordinance purposes. *Approved industrialized buildings* shall be acceptable in all *jurisdictions* as meeting the requirements of the *Kentucky Building Code*.

110.7.2 On-site construction: On-site construction related to *modular homes* or one- and two-family *dwelling* installations may be permitted and inspected by the *code official*. The *code official* shall be responsible for the inspection of the foundation system, placement of the

building, connections of the units, final set-up of the unit and the issuance of the *certificate of occupancy*.

110.8 Fire code official inspections. The *code official* shall cooperate with the fire code *official* by allowing the fire code *official* to inspect all *buildings* during construction. Recommendations made by the fire code *official* relating to fire safety in construction of a *building* shall be considered by the *code official*, and if a certificate of occupancy is issued contrary to the written recommendations, *the code official* shall give written notification of the decision to the fire code *official* immediately.

SECTION 111 CERTIFICATE OF OCCUPANCY

111.1 Use and occupancy. No *building* or *structure* shall be used or occupied, and no change in the existing occupancy classification of a *building* or *structure* or portion thereof shall be made until *the code official* has issued 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*.

111.2 Change in use. Changes in the character or use of an *existing structure* shall not be made except as *specified* in Chapter 34.

111.3 Certificate issued. Following inspection and finding no violations of the provisions of this code or other applicable laws, the *building official* shall issue a certificate of occupancy which contains the following:

1. The *building permit* number
2. The address of the *structure*
3. The name and address of the *owner*.
4. A description of that portion of the *structure* for which the certificate is issued
5. A statement that the described portion of the *structure* has been inspected for compliance with the requirements of this code for the occupancy and division of occupancy and the use for which the proposed occupancy is classified
6. The name of the *building official*
7. The edition of the code under which the *permit* was issued
8. The use and occupancy, in accordance with the provisions of Chapter 3
9. The type of construction as defined in Chapter 6
10. The design *occupant load*
11. If an *automatic sprinkler system* is provided, whether the sprinkler system is required
12. Any special stipulations and conditions of the *building permit*

111.4 Temporary occupancy. The *building official* is authorized to issue a *temporary* certificate of occupancy before the completion of the entire work covered by the *permit*, provided that such portion or portions shall be occupied safely. The *building official* shall set a time period during which the *temporary* certificate of occupancy is valid.

111.5 Revocation. The *building official* is authorized to, in writing, suspend or revoke a certificate of occupancy of completion issued under the provisions of this code wherever the certificate is issued in error, or on the basis of incorrect information supplied.

SECTION 112 SERVICE UTILITIES

112.1 Connection of service utilities. No *person* shall make connections from a utility, source of energy, fuel or power to any *building* or system that is regulated by this code for which a *permit* is required, until released by the applicable licensed and certified *persons listed* in Section 112.4.

112.2 Temporary connection. The authority to authorize the *temporary* connection of the *building* or system to the utility source of energy, fuel or power shall be by the applicable licensed and certified *persons listed* in Section 112.4.

112.4 Enforcement by local government. The electrical system shall be inspected and *approved* by a certified electrical inspector pursuant to KRS 227.489 and 815 KAR 35:015. The plumbing system shall be inspected and *approved* pursuant to KRS Chapter 318 of the *Kentucky Revised Statutes* and the *Kentucky State Plumbing Code* as set out in 815 KAR Chapter 20.

SECTION 113 BOARD OF APPEALS

113.1 General. All appeals from the decisions of code *officials* shall be conducted in accordance with the appeals provisions of KRS 198B.070. Where a local appeals board exists, a party must first appeal to the local board when aggrieved by a decision of the local code *official*. The *Board of Housing, Buildings and Construction* shall hear appeals directly from a party aggrieved by the decision of an agent of the *Department*.

113.2 Appeal by fire code official. Decisions rendered by the code *official* with respect to enforcement of the *Kentucky Building Code* may be appealed by the local fire code *official* of the *jurisdiction* if the fire code *official* is aggrieved by that decision.

113.3 Local appeals board. Local appeals boards may be appointed to hear appeals from the decisions of the local code *official* in accordance with the provisions of Sections 118.3.1 through 118.3.

113.3.1 Appointment. The mayor or county judge executive of a local government which is enforcing the *Kentucky Building Code* may, upon approval of the local legislative body, appoint a local appeals board, consisting of at least five technically qualified *persons* with professional experience related to the *building* industry, three of which shall not be employees of the local government, to hear appeals from the decisions of the local code *official* regarding *building* code requirements.

113.3.2 Cooperative agreements. Local governments which are enforcing the *Kentucky Building Code* may cooperate with each other and provide a local appeals board and shall adhere to the provisions of KRS Chapter

65 when entering into a cooperative agreement.

113.3.3 Disqualification of member. Local code *officials* or employees of a local inspection *Department* shall not sit on a local appeals board if the local board is hearing an appeal to a decision rendered by the local *Department*. A member of a local appeals board shall not hear an appeal in a case in which the member has a financial interest.

113.3.4 Right to appeal. Any party to a decision by the local code *official* may appeal that decision to the local appeals board. Upon receipt of an appeal from a qualified party, the local appeals board shall convene a hearing to consider the appeal within 15 days of receipt.

113.3.5 Notice of meeting. All parties to the appeal shall be notified of the time and place of the hearing by letter sent by certified mail not later than 10 days prior to the date of the hearing.

113.3.6 Board decision. The local appeals *Board* shall render a decision within five working days after the hearing. The *Board* may uphold, amend or reverse the decision of the local code *official*, and there shall be no appeal from the decision of the local appeals *Board* other than by appeal to the *Board of Housing, Buildings and Construction*.

113.3.7 Open hearing. All hearings before the local appeals board shall be open to the public. The appellant, the appellant's representative, the code *official* and all *persons* whose interests are affected shall be given an opportunity to be heard.

113.3.7.1 Procedure. The local appeals board shall adopt and make available to the public through the secretary procedures under which a hearing will be conducted. The procedures shall not require compliance with strict rules of evidence but shall mandate that only relevant information be received.

113.3.8 Local appeals board remedies. The local appeals board shall modify or reverse the decision of the code *official* by a concurring vote of a majority of voting members after quorum is established.

113.4 State appeals Board. Application for appeal by a property *owner* may be made when it is claimed that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply, an equally good or better form of construction can be used, or that the code *official* has refused to grant a modification to the provisions of this code covering the manner of construction or material to be used in the erection, *alteration* or *repair* of a *building* or *structure*. All appeals shall be submitted in writing.

113.4.1 Application procedure. Appeals to the *Board* shall be in writing and shall be addressed to the *Commissioner* of the *Department of Housing, Buildings and Construction*, 101 Sea Hero Road, Suite 100, Frankfort, Kentucky 40601-5405; Attention: Appeals *Board*. The appeal shall include citations of those provisions of the *Kentucky Building Code* which are at issue, an explanation of why the decision of the state *code*

official or local *code official* relative to those provisions is being contested and a copy of the decision rendered by the local appeals board, if any.

113.4.2 Investigation of appeal. The *Commissioner* shall immediately notify the *Board* or the five-member committee authorized by the *Board* when an appeal is received. The *Commissioner* or a designated employee of the *Department* shall then investigate the evidence pertaining to the appeal and, based on the results of the investigation, make written recommendations to the *Board* or committee on the disposition of the case in question, within 30 days.

113.4.3 Employee deferral. Employees of the *Department* shall not investigate or make recommendations on an appeal to his or her decision, but shall defer in this case to employees who are not party to the decision which led to the appeal.

113.4.4 Investigative authority. In conducting an investigation, the *Commissioner*, or the designated representatives acting for the *Department*, shall have the authority to administer oaths and affirmations, issue subpoenas authorized by law, rule upon offers of proof and receive relevant evidence, take or cause depositions to be taken, regulate the course of any hearings they may schedule, and hold conferences for the settlement or simplification of the issue by consent of the parties.

113.4.5 Administrative hearing. Pursuant to KRS Chapter 13B, if the issue has not been settled by agreement of the parties within limitations set by Section 118.5, the *Board* shall schedule an administrative hearing on the matter. The cost of any direct appeal to the *Department* (where there is no local appeals board established) shall be borne by the local government. The *Department* shall calculate the actual cost of processing the appeal and bill the local government at the conclusion of all proceedings.

113.4.6 Judicial appeals. Final orders of the *Board* are appealable to the Circuit *Court* in the county in which the property is located.

SECTION 114 VIOLATIONS

114.4 Violation penalties. Any *person* who violates a provision of this code or fails to comply with any of the requirements thereof; or who erects, constructs, alters or *repairs* a *building* or *structure* in violation of the *approved construction documents*, or directive of the *code official*, or of a *permit* or certificate issued under the provisions of this code, shall be subject to penalties provided by KRS 198B.990 and other applicable law.

**SECTION 115
STOP WORK ORDER**

115.2 Issuance. The stop work order shall be in writing and shall be given to the *owner* of the property involved, to the *owner's* agent, or to the *person* doing the work. Upon issuance of a stop work order, the cited work shall immediately cease according to the time limitation specified on the order. The stop work order shall state the reason for the order, and the conditions under which the cited work will be *permitted* to resume.

115.4 Limitation on changes. No inspector shall be authorized to require changes on-site which are contrary to the *approved construction documents*. If an inspector finds a code discrepancy in an on-site inspection, the inspector shall refer the matter to the *official* having construction document review responsibility who shall require corrections if the code so requires.

**SECTION 116
UNSAFE STRUCTURES AND EQUIPMENT**

116.3 Notice. If an unsafe condition is found as described in Section 114.1, the *code official* shall serve upon the *owner*, agent or *person* in control of the *structure*, a written notice that describes the condition deemed unsafe. The written notice shall additionally specify the required *repairs* or improvements to be made to abate the unsafe condition, or that requires the unsafe *structure* to be demolished within a stipulated time. Such notice shall require the *person* thus notified to declare immediately to the *building official* acceptance or rejection of the terms of the order.

116.6 Unsafe conditions in existing buildings. Unsafe conditions shall be referred to the fire *official* for complaints regarding unsafe conditions in *buildings* or portions which are not under construction or under the *jurisdiction* of the *building official*.

**SECTION 117
CABINET FOR HEALTH AND FAMILY SERVICES
(CHFS) REGULATED BUILDINGS**

117.1 Hospitals, nursing homes and institutional (Groups I-1 & I-2) facilities. *Hospitals, nursing homes* and other institutional (Groups I-1 & I-2) facilities licensed by the Cabinet for Health and Family Services (CHFS) and inspected under contract with CHFS by the *Department of Housing, Buildings and Construction* shall comply with the institutional group requirements *specified* in Chapter 4, including specific references to other sections of this code, and the applicable provisions of NFPA 101.

117.2 Day care centers. Day care centers that comply with the provisions of NFPA 101 and as *approved* by the State Fire Marshal shall be deemed to satisfy the life safety requirements of this code.

Exception: Day care centers governed by Section 425 of this code and other similar care facilities licensed by the Cabinet for Health and Family Services.

**SECTION 118
PROOF OF INSURANCE**

118.1 Compliance with law. The issuance of a *building permit* shall be contingent upon presentation of proof that all contractors and subcontractors employed or that will be employed in the construction, *alteration* or *repair* under the *permit* are in compliance with the applicable Kentucky worker's compensation and unemployment insurance law.

118.2 General applicability. Compliance with this section shall be achieved by presenting certificates, or other forms *approved* by law, to the *code official* issuing the *permit*.

**SECTION 119
POSTING STRUCTURES**

119.1 Posting. All signs required by this code to be posted shall be furnished by the *owner* and shall be of a *permanent* design. The signs shall not be removed or defaced. Required signs which are lost, removed or defaced shall be immediately replaced.

**SECTION 120
EFFECTIVE DATES**

120.1 General. The *building official* shall accept plans in compliance with the requirements of the 2013 edition of the *Kentucky Building Code*. All plans submitted on or after [April 1, 2015](#) shall be designed and submitted to conform to this code.

**SECTION 121
PLAN REVIEW AND INSPECTION FEES FOR
THE DEPARTMENT OF HOUSING, BUILDINGS
AND CONSTRUCTION**

121.1 General. A *permit* to begin work for new construction, *alteration*, removal or other *building* operations shall not be issued until the fees prescribed by law are paid to the *Department*, if applicable, and to the local *building Department*. If an amendment to a *permit* necessitates an *additional fee* because of an increase in the estimated cost of the work involved, the *permit* shall not be *approved* until the *additional fee* has been paid.

121.2 Special fees. Payment of fees for construction, *alteration* or removal, and for all work done in connection with or concurrently with the work contemplated by a *building permit* shall not relieve the applicant or holder of the *permit* from the payment of other fees that may be prescribed by law or ordinance for water taps, sewer connections, electrical *permits*, erection of signs and display *structures*, *marquees* or other appurtenant *structures*, or fees of inspections or certificates of occupancy or other privileges or requirements established by law.

121.3 State jurisdiction. The fees for plan review and inspection functions required by the *Department of Housing, Buildings and Construction* shall be as prescribed in Sections 121.3.1 through 121.3.17, as applicable.

121.3.1 Fee schedule. The fees shall be paid in accordance with Table 121.3.1.

**TABLE 121.3.1
DEPARTMENT OF HOUSING, BUILDINGS AND
CONSTRUCTION FEE SCHEDULE**

OCCUPANCY TYPE	COST PER SQ FOOT
Assembly	<u>16</u> cents
Business	<u>15</u> cents
Day care centers	<u>15</u> cents
Educational	<u>15</u> cents
High hazard	<u>16</u> cents
Industrial factories	<u>15</u> cents
Institutional	<u>16</u> cents
Mercantile	<u>15</u> cents
Residential	<u>15</u> cents
Storage	<u>15</u> cents
Utility and Miscellaneous	<u>13</u> cents

121.3.1.1 Fast-track elective. For *permit* applicants seeking early *site* and foundation approval prior to full review of the complete set of *construction documents*, the fee shall be that as calculated from Table 121.3.1 plus 50 percent of the full fee. The *additional* 50-percent fee shall not be less than \$400 and not more than \$3,000. The entire fee shall be paid at the time of the initial plan submission to the *Department*.

121.3.2 Submission of plans and fees. All plans and specifications required to be submitted to the *Department* shall be accompanied by the applicable fee as set forth herein, rounded to the nearest dollar.

121.3.3 Method of payment. All fees shall be submitted to the *Department of Housing, Buildings and Construction* in check form payable to the Kentucky State Treasurer.

121.3.4 Construction approval. Approval for construction shall not be issued by the *Department* until all required fees have been paid.

121.3.5 New construction. The plan review fees of the *Department* for new *buildings* shall be calculated by multiplying the total *building area* under construction by the cost per square foot of each occupancy type as *listed* in Table 121.3.1. The total square footage shall be determined by the outside *dimensions* of the *building*. The minimum fee for review of plans under this section shall be \$285. The fee for *buildings* with multiple or mixed occupancies may be calculated using the cost per square foot multiplier of the predominant use.

121.3.6 Additions to existing buildings. Plan review fees for *additions* to existing *buildings*, which do not require the entire *building* to conform to the *Kentucky Building Code*, shall be calculated in accordance with Table 121.3.1 by the measurement of the square footage of the *addition*, as determined by the outside *dimensions* of the *addition*. Minimum fee for review of plans under this section shall be \$285.

121.3.7 Change in use. Plan review fees for existing

buildings in which the group or occupancy type is changed shall be calculated in accordance with Table 121.3.1 by using the total square footage of the entire *building* or *structure* under the new occupancy type as determined by the outside *dimensions*. Minimum fee for review of plans under this section shall be \$285.

121.3.8 Alterations and repairs. Plan review fees for *alterations* and *repairs* not otherwise covered by this fee schedule shall be calculated by multiplying the cost for the *alterations* or *repairs* by 0.0030; or calculated by multiplying the total *area* being altered or *repaired* by the cost per square foot of each occupancy type as *listed* in Table 121.3.1, whichever is less. The total square footage shall be determined by the outside *dimensions* of the *area* being altered or *repaired*. The minimum fee for review of plans under this section shall be \$285.

121.3.9 Specialized fees. In *addition* to the above fees, the fees in Table 121.3.9 shall be applied for the specialized plan reviews *listed*.

**TABLE 121.3.9
AUTOMATIC SPRINKLER
PLAN REVIEW FEE SCHEDULE**

NUMBER OF SPRINKLERS	FEE
4 – 025	\$150
026-100	\$200
101-200	\$250
201-300	\$275
301-400	\$325
401-750	\$375
OVER 750	\$375 plus 30 cents per sprinkler over 750

121.3.10 Fire detection system review fee. Zero to 20,000 square feet shall be \$275; over 20,000 square feet shall be \$275 plus \$30 for each *additional* 10,000 square feet in excess of 20,000 square feet.

121.3.11 Standpipe plan review fee. \$275 (combination standpipe and riser plans shall be reviewed under the *automatic* sprinkler review fee schedule).

121.3.12 Carbon dioxide suppression system review fee. One to 200 pounds of agent shall be \$275; over 200 pounds of agent shall be \$275 plus 5 cents per pound in excess of 200 pounds.

121.3.13 Clean agent suppression system review fee. Up to 35 pounds of agent shall be \$275; over 35 pounds shall be \$275 plus 10 cents per pound in excess of 35 pounds. The fee for gaseous systems shall be 10 cents per cubic foot and not less than \$275.

121.3.14 Foam suppression system review fee. \$0.50 per gallon of foam concentrate where the system is not part of an *automatic sprinkler system*. Foam suppression system plans that are submitted as part of an *automatic sprinkler system* shall be reviewed under the *automatic* sprinkler review fee schedule. The fee for review of plans

under this section shall not be less than \$275 nor more than \$1,500.

121.3.15 Commercial range hood review fee. \$225 per hood including range hood extinguishing system review when those plans are submitted together.

121.3.15.1 Commercial range hood extinguishing system review fee. \$150 per system when the range hood extinguishing system is submitted separate from the range hood system.

121.3.16 Dry chemical systems review fee (except range hoods). One to 30 pounds of agent shall be \$275; over 30 pounds of agent shall be \$275 plus 25 cents per pound in excess of 30 pounds.

121.3.17 Spectator seating system review fee. Seating systems having 1 to 1000 seats shall be \$275; over 1000 seats shall be \$275 plus \$20 for each *additional* 200 seats in excess of 1000 seats. The total number of seats in seating systems without dividing arms shall be calculated at 18 inches per seat as required by Section 1004.4 of this code.

121.3.18 Consumer Fireworks Retail Fee. For tents, temporary structures, or buildings used for the retail sales of consumer fireworks, the fees shall be:

121.3.18.1 Temporary Tents and Structures: \$125

121.3.18.2 Store: \$250

121.3.18.3 Permanent Building: 13 cents per square foot.

121.4 Local jurisdiction. Each local government shall adopt its own schedule of reasonable fees for *building permits* and the performance of functions under this code. The fees shall be designed to cover fully the cost of the service performed but shall not exceed the cost of the service performed.

121.5 Accounting. The code *official* shall keep an accurate account of all fees collected and such collected fees shall be deposited monthly in the *jurisdiction* treasury, or otherwise disposed of as required by law.

SECTION 122 LICENSED DESIGN PROFESSIONALS

122.1 General. All *construction documents* required by Section 106.1 are to be prepared by a *licensed design professional*, and bear the required signature and seals as indicated in Table 122.1. Table 122.1 is a summary of KRS 322 and KRS 323 which establishes, based on use and occupancy of a *building* or *structure*, when a *licensed design professional* is required. Where there is a conflict between Table 122.1 and KRS 322 or KRS 323, the KRS shall apply.

Exception: Seals of *licensed design professionals* shall not be required for tenant space *alterations* unless the space itself is of a size that would require the seal if it were a new *building*.

122.2 Special inspections. *Special inspections* shall be made as required by and in accordance with Section 1704.

122.2.1 Code assurances. If construction on a *building* began prior to approval by the code *official* or the construction does not conform to the *approved construction documents* or the standards required by the code, the code *official* may require *special inspections* and reports if necessary to ensure safety.

122.2.2 Fees and costs. Fees and costs related to the performance of *special inspections* by professional services shall be borne by the *owner*.

122.3 Licensed HVAC contractors. All work involving HVAC as defined and required by KRS Chapter 198B shall be provided by a licensed Journeyman HVAC Mechanic working under the supervision of a licensed Master HVAC Contractor. The code *official* may require proof of licensure when making inspections.

122.4 Quality work. All work shall be conducted, installed and completed in a workmanlike and acceptable manner so as to ensure the results intended by this code.

**TABLE 122.1
LICENSED DESIGN PROFESSIONAL SEALS**

NOTE: Projects involving new *structures, additions* or renovations require *licensed design professional* services when the *building* size or calculated *occupant load* exceeds the limits indicated by Table 122.1.

GROUP CLASSIFICATION OR SPECIAL USE	BUILDING SIZE^e (square feet)	CALCULATED^e OCCUPANT LOAD	ARCHITECT	ENGINEER	EITHER	NONE
Assembly	—	100 ^a	X	X	—	—
Business	10,000	100	X	X	—	—
Educational	Any size	Any size	X	X	—	—
Factory & industrial	20,000	—	—	—	X	—
High hazard	Any size	Any size	—	—	X	—
Institutional	Any size	Any size	X	X	—	—
Mercantile	—	100	X	X	—	—
Residential	12 <i>dwelling units</i>	50 ^g	X	X	—	—
Storage ^e	20,000	—	—	—	X	—
Public works projects	Any	Any	—	—	X	—
SPECIAL USES						
Church buildings ^f	6,000	400	X	X	—	—
Day care	3,500 ^b	100 ^b	X	X	—	—
Farm Structures	Any size	Any size	—	—	—	X
Mixed uses	Note c	Note c	X	X	—	—
Smaller buildings	Note d	Note d	—	—	—	X
Nonbuilding structures	—	—	—	—	—	X

For SI: 1 square foot = 0.093 m².

- a. Assembly uses having 700 square feet to 1,500 square feet may actually have calculated *occupant load* exceeding 100 *persons* depending on the specific use of assembly *areas*.
- b. Net *floor area* occupied by clients is 35 square feet per client and calculated *occupant load* is actually client load.
- c. *Buildings* having two or more different uses require both architect and engineer when the combined calculated *occupant load* exceeds 100 *persons*, unless the mixed uses are exclusively factory, high hazard or storage.
- d. Smaller *buildings* of any use having total *area* or calculated *occupant load* less than *specified* for that use do not require *licensed design professional* services.
- e. Projects involving *additions* to existing *buildings* shall include existing *building areas* and/or calculated *occupant loads* when determining requirements for *licensed design professional* services. Use the actual *occupant load* if it is greater than the calculated *occupant load*.
- f. No architect or engineer is required unless the church *building* size reaches 6,000 total square feet or a calculated *occupant load* of 400 *persons*.
- g. The number of *dwelling units* shall be the determining factor. However, for a dormitory or boarding home, the *occupant load* shall be determined by *area* or actual *occupant load*.

CHAPTER 2 DEFINITIONS

SECTION 201 GENERAL

201.3 Terms defined in other codes. Where terms are not defined in this code and are defined in the International Energy Conservation Code, NFPA 54, National Fuel Gas Code, International Fire Code, International Mechanical Code or Kentucky Plumbing Code, such terms shall have the meanings ascribed to them as in those codes.

The following definitions are hereby added to Chapter 2 of the 2012 International Building Code. Where terms appear in both the IBC and this code, the corresponding definitions in this code shall supersede.

SECTION 202 DEFINITIONS

AGRICULTURAL BUILDING. A *building* or *structure*, other than one exempt from the code as a *building* or *structure* incident to the operation of a farm by KRS 198B.010 or under Section 101.2, utilized to *store* farm implements, hay, feed, grain or other agricultural or horticultural products or to house poultry, livestock or other farm animals. Such *structure* shall not include habitable or *occupiable spaces*; spaces in which agricultural products are processed, treated or packaged; nor shall an *agricultural building* be occupied by the general public.

APPROVER AGENCY. An established and qualified *person*, firm or corporation regularly engaged in conducting tests or furnishing inspection services, when such qualified *person*, firm or corporation has been *approved* by the *building official* or the *licensed design professional* in responsible charge, pursuant to Chapter 17 of this code.

APPROVED FABRICATOR. An established and qualified *person*, firm or corporation *approved* by the *code official* or the *licensed design professional in responsible charge*, pursuant to Chapter 17 of this code.

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

BED AND BREAKFAST ESTABLISHMENT. A *building* occupied as a one-family *dwelling unit*, but which also has guestrooms or suites, which are used, rented or hired out to be occupied or which are occupied for sleeping purposes by *persons* not members of the single-family unit. The *building* shall be known as either a bed-and-breakfast inn or a bed-and-breakfast home.

BED AND BREAKFAST HOME. A bed-and-breakfast establishment having five or less guestrooms or suites shall comply with the requirements of this code applicable to Use Group R-3 and with Section 426.1.

BED AND BREAKFAST INN. A bed-and-breakfast establishment having six or more guestrooms or suites shall comply with the requirements of this code applicable to Use Group R-1.

BOARD OF HOUSING OR BOARD. The Kentucky *Board of Housing, Buildings and Construction*.

BUILDING. Any combination of materials, whether portable or fixed, which comprises a *structure* or non-mine underground *area* affording facilities or shelter for any human occupancy, whether infrequent or regular. The word "*building*" shall be construed wherever used herein as if followed by the words "or part or parts thereof, and all equipment therein," unless the context clearly requires a different meaning. "*Building*" shall also mean *swimming pools* constructed below *grade on site*, but not *swimming pools* assembled above *grade on site*. In accordance with KRS 198B.010, "*Building*" shall not mean a mobile home, *manufactured home*, farm *dwelling* or other farm *buildings* and *structures* incident to the operation and maintenance of the farm, if such farm *structures* are located outside the boundary of a municipality and are not used in the business of retail trade or used as a place of regular employment for ten (10) or more people or *structures* used in the storage or processing of timber products. Each portion of a *building* which is completely separated from other portions by Section 705 compliant *fire walls* shall be considered as a separate *building* for purposes of applying this code.

CODE OFFICIAL OR OFFICIAL. A *building* inspector certified by the *Department* in accordance with 815 KAR 7:070 and designated by the *Department* or by a local government as an enforcement *official* for the Kentucky *Building Code* pursuant to KRS Chapter 198B.

COMMISSIONER. The *Commissioner* of the *Department* of Housing, *Buildings* and *Construction*.

CONSUMER FIREWORKS RETAIL SALES FACILITY (CFRS FACILITY). A *permanent* or *temporary building* or *structure*, *CFRS stand*, *tent*, *canopy*, or membrane *structure* that is used primarily for the retail display and sale of consumer *fireworks* to the public as per Section 3.3.29.1 of NFPA 1124.

CONSUMER FIREWORKS RETAIL SALES (CFRS) STAND. A *temporary* or *permanent building* or *structure* that has a *floor area* not greater than 800 square feet (74 m²), other than tents, canopies or membrane *structures*, that is used primarily for the retail display and sale of consumer *fireworks* to the public as per Section 3.3.19 of NFPA 1124.

DAY CARE CENTER, TYPE I. Any *facility* which regularly provides day care for thirteen (13) or more clients. If preschool children of any day care staff also receive care in the *facility*, they shall be included in the number of day care clients for which the *facility* is licensed.

DAY CARE CENTER, TYPE II. Any home or *dwelling unit* which regularly provides care, apart from parents, for seven (7) but not more than twelve (12) clients. The director's own pre-school children shall be included in the number of clients for which the home is licensed. The *facility* shall be occupied by a center staff member as their principle place of residence.

DEPARTMENT. The Department of Housing, Buildings and Construction.

DESIGN PROFESSIONAL, LICENSED. See "Licensed *design professional*."

DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE, LICENSED. See "licensed *design professional* in responsible charge."

DEVELOPED SPACE. *Subterranean space* that has been altered for the use of advanced industrial capability, technological sophistication, or economic productivity.

FARM. Property located outside the corporate limits of a municipality on at least 10 acres and having a bona fide agricultural or horticultural use as defined by KRS 132.010(9) and (10) and qualified by and registered with the property valuation administrator in that county.

FIRE AREA. The aggregate floor area enclosed and bounded by fire walls, fire barriers, exterior walls or horizontal assemblies of a building.

FIRE CODE OFFICIAL. The State Fire Marshal, fire chief or other enforcement officer designated by the appointing authority of the *jurisdiction* for the enforcement of the provisions of KRS 227.300 and the Kentucky Standards of Safety (Fire Prevention Code) as set forth in 815 KAR Chapter 10.

HOT TUB. See definition of *private swimming pool*.

INDUSTRIALIZED BUILDING. A *building approved* under the *Kentucky Industrialized Building System* (KIBS) Program designed and constructed for use multiple times, transported, and used upon multiple *sites* throughout its life.

INDUSTRIALIZED BUILDING SYSTEM OR BUILDING SYSTEM. Defined in KRS 198B.010(16) and applicable to *buildings* of any size or use, all or any component parts of which are of closed construction made from precast *concrete panels* or precut wood sections fabricated to individual specifications in an off-site manufacturing *facility*, and assembled in accordance with manufacturer's instructions.

IN-GROUND POOL. See definition of *private swimming pool*.

INMATE LIVING AREA. Those *areas* where inmates are normally confined and where their movement is restricted by *penal doors*, including *cells*, dayrooms, dormitories, detoxification *cells*, isolation *cells* and *temporary holding cells*.

JAIL. A county and correctional or detention facility. *Jails* include correctional facilities defined in KRS 67B.020 which are operated under 501 KAR 3:010 by and under the supervision of any county, regional *jail* authority, city or urban county government.

KAR. Kentucky Administrative Regulation.

KENTUCKY STANDARDS OF SAFETY. 815 KAR 10:060 which is established by the *Commissioner* of the *Department* of Housing, *Buildings* and Construction pursuant to KRS 227.300 to serve as the fire prevention code for existing *buildings*, as well as a supplement to this code, where applicable.

KRS. Kentucky Revised Statutes.

LATERAL FORCE RESISTING SYSTEM. The structural elements designed to resist effects of lateral forces such as the Main Wind-Force Resisting System and the *Seismic force resisting system*.

LICENSED DESIGN PROFESSIONAL. An individual who is licensed as an Architect as required by KRS 323 or a Professional Engineer as required by KRS 322.

LICENSED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. A *licensed design professional* engaged by the *owner* to review and coordinate certain aspects of the project, as determined by the *code official*, for compatibility with the design of the *building* or *structure*, including submittal documents prepared by others, deferred submittal documents and phased submittal documents.

LIFE SAFETY JAIL. *County jails* including correctional facilities defined in KRS 67B.020, operated under the provisions of 501 KAR 13:010, which does not house state prisoners as defined by KRS 532.100.

LOCAL JAIL. Any Use Group I-3 *facility* under the supervision of a county, regional *jail* authority, city or urban county government.

MANUFACTURED HOME. A factory-built *structure* on a *permanent* chassis designed to be used as a *dwelling* and which is regulated by the federal government and the State Fire Marshal. These homes are required to carry a "HUD" seal applied by the manufacturer.

MEMBRANE STRUCTURE. An air-inflated, air-supported, cable or frame-covered structure..

MODULAR HOME. An industrialized *building* system which is designed to be used as a residence which is not a manufactured or mobile home.

ORDINARY REPAIR. Any nonstructural reconstruction or renewal of any part of an existing *building* for the purpose of its maintenance or decoration, and shall include, but not be limited to, the replacement or installation of nonstructural components of the *building* such as roofing, siding, windows, storm windows, insulation, drywall or lath and plaster, or any other replacement, in kind, that does not alter the structural integrity or alter the occupancy or use of the

building, or affect, by rearrangement, *exits* and *means of egress*. *Ordinary repair* shall not include *additions* to, or *alterations* of, or relocation of any standpipe, water supply, sewer, drainage, gas, soil, waste, vent or similar piping, electric wiring or mechanical equipment including furnaces and hot water heaters or other work affecting public health and safety.

PENAL DOOR. A door required by the Kentucky *Jail Standards* to enclose inmate living *area* or restrict inmate movement through other *areas* of a *local jail*.

PERMANENT. As applied to *buildings* or *structures*: a *building* or *structure* affixed to a foundation on a *site* and having fixed utility connections, that is intended to remain on the *site* for more than 180 consecutive calendar days as per Section 3.3.51 of NFPA 1124. *Permanent buildings* or *structures* intended to be utilized primarily for the retail sales of consumer *fireworks* shall be registered through the Division of Fire Prevention for primary *permanent* sales.

PIER FOUNDATION. A structural foundation member with large cross-sectional *area* compared to its length.

PILE FOUNDATION. A structural foundation member with small cross-sectional *area* compared to its length.

POWER SAFETY COVER. A pool cover, which is placed over the water *area*, and is opened and closed with a motorized mechanism activated by a control switch.

PRIVATE BUILDING OR FACILITY. A place of public accommodation or a commercial *building* or *facility* subject to title III of the ADA and 28 CFR part 36 or a transportation *building* or *facility* subject to title III of the ADA and 49 CFR 37.45.

PRIVATE EVENT. Any event that involves the use of temporary structures which are not open to the public, regardless of whether on public or private property, and do not charge an admission fee if occupied by less than 1,000 occupants.

PRIVATE SWIMMING POOL. Any *structure* that contains water over 24 inches (610 mm) deep and which:

- a. is used, or intended to be used, for swimming or recreational bathing in connection with a Group R-3 occupancy; and
- b. is available only to the family and guests of the householder. This includes *swimming pools* constructed below *grade on site*, but not those assembled above *grade on site*.

PRIVATE SWIMMING POOL, INDOOR. Any *private swimming pool* completely contained within a private *structure* and surrounded by *walls* of said *structure*.

PRIVATE SWIMMING POOL, OUTDOOR. Any *private swimming pool* that is not an indoor pool.

PUBLIC BUILDING OR FACILITY. A *building* or *facility* or portion of a *building* or *facility* designed, constructed or altered by, on behalf of, or for the use of a

public entity subject to title II of the ADA and 28 CFR part 35 or to title II of the ADA and 49 CFR 37.41 or 37.43.

PUBLIC EVENT. Any event that involves the use of temporary structures which are open to the public, regardless of whether admission is charged or whether on private or public property.

PUBLIC SWIMMING POOL. Any *swimming pool* constructed below *grade on site*, which is not a *private swimming pool*.

PUBLIC WORK. Construction of a new *building*, renovation or *alterations* to an existing *building*, or the change of use of an existing *building* that is owned by the state or any of its political subdivisions including local governments. Public works shall be in accordance with requirements of KRS 322.360 and KRS 323.033(5).

QUALIFIED CERTIFICATION AUTHORITY. A nationally recognized organization with the capability to observe, assess, document and monitor the professional, technical, and production activities of the fabricator or *special inspector*.

RATIONAL ANALYSIS. Alternative analytical calculations, experimental data, or reference citations that have been approved for use by the *building official*.

RESIDENTIAL CARE FACILITIES. A *building* or part thereof housing *persons* on a 24-hour basis who, because of age, mental disability or other reasons, live in a supervised residential environment which provides *personal care services*. The occupants are capable of responding to an emergency situation without physical assistance from staff. This classification shall include, but not be limited to, the following: residential board and care facilities, halfway houses, *group homes*, congregate care facilities, social rehabilitation facilities, alcohol and drug abuse centers and convalescent facilities.

RESTRICTED CUSTODY CENTER. A *facility* or *area* separate from the *jail* used for the housing of sentenced inmates who have been *approved* by the *court* for educational, work, or program participation release and operated under 501 KAR 7:010.

SEISMIC FORCE RESISTING SYSTEM. The structural elements and structural systems designed to resist earthquake-induced force and deformation effects.

SINGLE-FAMILY DWELLING. A single unit providing complete independent living facilities for one or more *persons* including *permanent* provisions for living, sleeping, eating, cooking and sanitation, and which shall not be connected to any other unit or *building*.

SPA. See definition of *private swimming pool*.

SPECIAL INSPECTOR. A qualified *person*, firm or corporation who can demonstrate competence, experience and education, to the satisfaction of the *building official* and *licensed design professional in responsible charge* for

inspection of the particular type of construction or operation requiring *special inspection*(s).

SPECTATOR SEATING. A single section or sections of *permanent, temporary* or portable tiered or stepped seating facilities, such as *bleachers*, grand stands or folding and telescoping seating, having an aggregate capacity of more than fifty (50).

STATE JAIL. Any Use Group I-3 facility under the direct supervision and operation of the Commonwealth of Kentucky.

STORE. A *building* classified as a mercantile occupancy that contains a variety of merchandise and that is not used primarily for the retail sales of consumer fireworks as per Section 3.3.74 of NFPA 1124.

STRUCTURAL OBSERVATION. The visual observation of the structural system by a *licensed design professional* for general conformance to the approved *construction documents*. *Structural observation* does not include or waive the responsibility for the inspection required by Section 110, 1705 or other sections of this code.

SUBTERRANEAN SPACE. A cavern resulting from the extraction of subsurface-located material from underground areas in a manner that the surface area of the property is not disturbed except in the vicinity of the entrances and ventilation openings.

TEMPORARY. As applied to *buildings* or *structures*: a *building* or *structure* not meeting the definition for *permanent structure*. As applied to electrical power and wiring: electrical service in use or in place for a period of 90 consecutive calendar days or less as per Section 3.3.75 of

NFPA 1124. *Temporary buildings* or *structures* intended to be utilized seasonally for the retail sales of consumer *fireworks* shall be registered through the Division of Fire Prevention for seasonal sales.

TEMPORARY OVERHEAD SUPPORT STRUCTURE. Any temporary structure not otherwise defined by this section, used to either cover a temporary stage or temporary platform, or used to support any type of entertainment technology equipment over a temporary stage or temporary platform.

TEMPORARY PLATFORM. A platform erected for a 30 days or less within a single permit cycle that has a raised area used for worship, the presentation of music, plays or other entertainment; the head table for special guests; the raised area for lecturers and speakers; boxing and wrestling rings; theater-in-the-round stages; or similar purpose. These platforms shall not have overhead hanging curtains, drops, scenery or stage effects other than lighting and sound.

TEMPORARY STAGE. A stage erected for a period of 30 days or less within a calendar year utilized for entertainment or presentations. Temporary stages may include overhead hanging curtains, drops, scenery or stage effects other than lighting and sound.

TEMPORARY STRUCTURE. Any structure erected for human occupancy on a temporary basis for less than 180 days within a 12 month period on a single premises. Temporary Structures include, but are not limited to, membrane structures, certified tents, certified canopies,. Stages, platforms and non-certified tents or non-certified canopies are, by definition, Temporary Structures if erected for a 30 days or less within a single permit cycle.

CHAPTER 3
USE AND OCCUPANCY CLASSIFICATION

The following use and occupancy classifications are added or replaced in Chapter 3 of the International Building Code:

SECTION 303
ASSEMBLY GROUP A

303.1.4 Accessory to places of religious worship.
DELETE Section 303.1.4 in its entirety.

303.3 Assembly Group A-2. Assembly uses intended for food and/or drink consumption including, but not limited to:

- Banquet halls
- Casinos (gaming areas)
- Dance halls
- Nightclubs
- Restaurants, cafeterias and similar dining facilities (including associated commercial kitchens)
- Taverns and bars

303.4 Assembly Group A-3. Assembly uses intended for worship, recreation or amusement and other assembly uses not classified elsewhere in Group A including, but not limited to:

- Amusement arcades
- Art galleries
- Auction houses
- Auditoriums
- Bowling alleys
- Community halls
- Courtrooms
- Dance halls not including food or drink consumption
- Exhibition halls
- Fitness clubs
- Funeral parlors
- Gymnasiums without spectator seating
- Gymnastic centers without spectator seating
- Health clubs
- Indoor swimming pools without spectator seating
- Indoor tennis courts without spectator seating
- Lecture halls
- Libraries
- Museums
- Passenger Stations (waiting areas)
- Places of religious worship, including fellowship halls, religious education classrooms, recreation and family life centers
- Pool and billiard parlors

303.5 Assembly Group A-4. Assembly uses intended for viewing of indoor sporting events and activities with spectator seating, including, but not limited to:

- Arenas
- Gymnasiums
- Skating rinks
- Swimming pools
- Tennis courts

SECTION 304
BUSINESS GROUP B

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 care facilities (non-licensed clinics B use group per 902 KAR 20:073)
- Ambulatory surgical centers regulated by 902 KAR 20:101(Ambulatory surgical facilities as regulated by 902 KAR 20:101 shall comply with the provisions of this code and Chapter 20 of NFPA 101, as referenced in Chapter 35, whichever is more restrictive. These occupancies will be licensed through Cabinet for Health and Family Services and classified as an I-2 use group).
- 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
- Electronic data processing
- Laboratories: testing and research
- Motor vehicle showrooms
- Post offices
- Print shops
- Professional services (architects, attorneys, dentists, physicians, engineers, etc.)
- Radio and television stations
- Telephone exchanges

**SECTION 305
EDUCATIONAL GROUP E**

305.1 Educational Group E. Educational Group E occupancy includes the use of a *building* or *structure*, or a portion thereof, other than those occupied for business training or vocational training, by six or more *persons* at any one time for educational purposes including, among others, schools, academies, colleges and universities.

Exception: A room or space occupied for educational purposes by less than 50 *persons*, 5 years of age or more, and which is accessory to another group shall be classified as part of the main group

305.2 Day care. Any licensed *facility* which is not classified as Group I-1 or I-2 and provides care for 13 or more children or other persons for less than 24 hours per day shall be classified as Group E. All day cares shall comply with section 425.1.

305.3 Business or vocational training. *Structures* occupied for business training shall be classified in the same group as the business or vocation taught.

**SECTION 307
HIGH-HAZARD GROUP H**

307.1.2 Referenced codes. The fire code *official* shall have exclusive *jurisdiction* for code enforcement of the storage, *handling*, processing and transportation of flammable and *combustible liquids* and other hazardous materials pursuant to 815 KAR 10:060 (Kentucky Standards of Safety); and fees for the installation and *alteration* of tanks and piping systems shall be paid in accordance with Section 307.1.3.

Exceptions:

1. Detached one- and two-family *dwellings* and multiple *single-family dwellings* that fall under the scope of the Kentucky Residential Code
2. Flammable and *combustible liquids* and other hazardous materials used in the operation of a *farm*

307.1.3 Flammable, combustible liquids or gases and hazardous materials plan review fee: \$100 per tank, plus \$50 for each *additional* tank and \$100 per piping system (including valves, fill pipes, vents, leak detection, spill and overfill detection, cathodic protection or associated components.)

[F] **Table 307.1(1) Maximum Allowable Quantity per Control Area of Hazardous Materials Posing a Physical Hazard**

Table 307.1(1) in the 2012 International Building Code will remain as is with the exception of footnote "p" which will read as follows:

p. The following shall not be included in determining the maximum allowable quantities:

1. *Liquid or gaseous fuel in fuel tanks on vehicles*
2. *Liquid or gaseous fuel in fuel tanks on motorized equipment operated in accordance with this code*
3. *Gaseous fuels in piping systems and fixed appliances regulated by the NFPA 54, National Fuel Gas Code*
4. *Liquid fuels in piping systems and fixed appliances regulated by the International Mechanical Code*

**SECTION 308
INSTITUTIONAL GROUP I**

308.3 Institutional Group I-1. This occupancy shall include a *building* or part thereof that is licensed through the Cabinet for Health and Family Services and housing *persons*, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment that provides *personal care services*. The occupants are capable of responding to an emergency situation without physical assistance from staff. The group shall include the following:

- Residential board and care facilities
- Half-way houses
- Group homes*
- Congregate care facilities
- Social rehabilitation facilities
- Alcohol and drug centers
- Convalescent facilities

Subsections 308.3.1 and 308.3.2 are hereby DELETED from the 2012 IBC.

308.6 Institutional Group I-4, day care facilities. *DELETE this section in its entirety, including subsections 308.6.1, 308.6.2, 308.6.3 and 308.6.4.*

**SECTION 310
RESIDENTIAL GROUP R**

310.2 Definitions. The following terms are defined in Chapter 2.

BED AND BREAKFAST ESTABLISHMENT.

BED AND BREAKFAST HOME.

BED AND BREAKFAST INN.

BOARDING HOUSE.

CONGREGATE LIVING FACILITIES.

DORMITORY.

GROUP HOME.

PERSONAL CARE SERVICE.

RESIDENTIAL CARE FACILITIES.

TRANSIENT.

310.4 Residential Group R-2. Residential occupancies containing more than two dwelling units where the occupants are primarily permanent in nature, including:

- Apartment houses
- Assisted living facilities
- Boarding houses* (nontransient) with more than 16 occupants
- Congregate living facilities
- Convents
- Dormitories
- Fraternities and sororities
- Hotels (nontransient)
- Monasteries
- Motels (nontransient)
- Vacation time share properties

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

1. *Buildings* that do not contain more than two *dwelling units* and exceed three stories in height
2. *Congregate living facilities* (transient) with 10 or fewer occupants

3. *Boarding houses* (not transient) with 16 or fewer occupants
4. *Boarding houses* (transient) with 10 or fewer occupants
5. Care facilities that provide accommodations for give for fewer *persons* receiving care
6. *Congregate living facilities* (nontransient) with 16 or fewer occupants

310.5.1 Care facilities within a dwelling. Care facilities for five or fewer *persons* receiving care that are within a *single-family dwelling* which are non-licensed facilities are permitted to comply with the *Kentucky Residential Code* provided an *automatic sprinkler system* is installed in accordance with Section 903.3.1.3.

310.6 Residential Group R-4. Residential occupancies shall include *buildings* arranged for occupancy as non-licensed *Residential care facilities* including more than five occupants, excluding staff. Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3 except for the height and *area* limitations provided in Section 503 and the sprinkler provisions as required by 903.2.8.3.

CHAPTER 4
SPECIAL DETAILED REQUIREMENTS BASED ON USE
AND OCCUPANCY

The following special detailed requirements based on use and occupancy are added or replaced in Chapter 4 of the International Building Code:

SECTION 405
UNDERGROUND BUILDINGS

405.1 General. The provisions of Sections 405.2 through 405.10 apply to *building* spaces having a floor level used for human occupancy more than 30 feet (9144 mm) below the finished floor of the lowest *level of exit discharge*.

Exceptions: The provisions of Section 405 are not applicable to the following *buildings* or portions of *buildings*:

1. One- and two-family *dwelling*s, sprinklered in accordance with Section 903.3.1.3
2. Parking garages provided with *automatic sprinkler systems* in compliance with Section 405.3
3. Fixed guideway transit systems
4. *Grandstands, bleachers, stadiums, arenas* and similar facilities
5. Where the lowest *story* is the only *story* that would qualify the *building* as an underground *building* and has an *area* not greater than 1,500 square feet (139m²) and has an *occupant load* less than 10
6. Pumping stations and other similar mechanical spaces intended only for limited periodic use by service or maintenance personnel
7. Developed *subterranean spaces* in compliance with Section 427 of this code and NFPA 520

SECTION 407
Groups I-1 and I-2

407.1 General. All occupancies in Groups I-1 and I-2 shall comply with the provisions of NFPA 101. In *addition*, the following sections of this code shall apply: Table 503 (*Area Limitations Only*), Sections 107.2.2, 410, 412.7, 506, 507, Chapter 6, 705, 706, 711, 713.11, 713.12, 714, 715, 716, 718, 719, 805, 806, 1009.16, 1018.5, 1026.5, Chapter 11, 1209.2, Chapter 13, Chapter 14, 2406.4, and Chapters 16 through 34.

Sections 407.2 through 407.10 are hereby DELETED in their entirety from the 2012 IBC.

SECTION 408
GROUP I-3

408.1 General. Occupancies in group I-3 shall comply with the provisions of Sections 408.1 through 408.11 and other applicable provisions of this code (see Section 308.5).

408.1.1 Definitions. The following terms are defined in Chapter 2.

CELL.

CELL TIER.

HOUSING UNIT.

INMATE LIVING AREA.

JAIL.

LIFE SAFETY JAIL.

LOCAL JAIL.

PENAL DOOR.

RESTRICTED CUSTODY CENTER.

SALLYPORT.

STATE JAIL.

LOCAL JAILS. *Local jails* shall comply with the special requirements of Section 408.12 in *addition* to the requirements of 408.2 through 408.11.

408.12 Local jails. *Local jails* shall comply with the requirements of this section and where conflicts exist with the other requirements of this code, this section shall take precedent. *Local jails* shall be classified as one of the following: *Jail, Restricted custody center, or Life safety jail.*

408.12.1 Emergency smoke control/evacuation. All *areas* of *Jails* and *Life safety jails* where an inmate may be confined shall be provided with an emergency smoke control/evacuation system meeting the requirements of this section. The system shall be activated by *smoke detectors* and shall be connected to an emergency power supply. The system shall be engineered as an independent system or may be engineered to work in conjunction with the *building* HVAC system.

408.12.1.1 Design. All floors which house inmates shall be designed to have a minimum of two *smoke compartments*. The *smoke compartments* shall be of approximately equal size and separated by a *smoke barrier wall* constructed in accordance with Section 709 of this code. The smoke control system shall be capable of maintaining a negative pressure in the contaminated *smoke compartment*. The smoke control system shall be capable of ten (10) air changes per hour. The plan review of this system, the operation of the system and the final operational test shall be subject to approval by the Department of Corrections.

408.12.2 Automatic sprinkler system. All *areas* of *jails* and *Life safety jails*, where inmates shall not be confined, including but not limited to *corridors*, storage *areas*, laundry rooms, mechanical rooms, closets and office *areas*, shall be equipped with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1. Facilities that are equipped with an *automatic sprinkler system* as required by this section and an emergency smoke control/evacuation system as required by Section 408.12.1 are entitled to all height or *area* increases and other reductions of code requirements normally allowed for fully sprinklered *buildings*.

408.12.3 Mixed use buildings. Where a *jail* or *life safety jail* is attached to, located above or below another occupancy, or is otherwise a part of a *building* not of the I-3 occupancy, the *building* shall comply with Section 508.4 or Section 706.1 of this code. The *jail* or *life safety jail* shall be separated from all other occupancies with fire resistant construction of not less than 2-hours.

408.12.4 Doors and glazing. The Department of Corrections shall approve *penal doors* in *jails* and *life safety jails*. Glass-clad polycarbonate glazing shall be an acceptable alternate to wired glazing. All door openings that do not require a *penal door* and hardware shall be protected by opening protection as required by other sections of this code.

408.12.5 Restricted custody centers. All *restricted custody centers* attached to or separate from a *jail* shall be considered as Occupancy Condition 1 and shall have free egress or *automatic* time delayed emergency release doors with a maximum time delay of thirty (30) seconds.

408.12.5.1 Automatic sprinkler system. All *restricted custody centers* attached to or separate from a *jail* shall be equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1

408.12.6 Existing Facilities. All existing *jails*, *life safety jails* and *restricted custody centers*, which are in operation and have prior approval from the Department of Corrections shall be exempt from these requirements until such time the facilities are renovated.

SECTION 415

GROUPS H-1, H-2, H-3, H-4 AND H-5

415.8.1 Combustible dusts, grain processing and storage. The provisions of Sections 415.8.1.1 through 415.8.1.6 shall apply to *buildings* in which materials that produce *combustible dusts* are stored or handled. *Buildings* that store or handle *combustible dusts* shall comply with the applicable provisions of NFPA 61, NFPA 85, NFPA 120, NFPA 484, NFPA 654, NFPA 664, 815 KAR 10:060 Kentucky Standards of Safety and the International Fire Code.

415.8.2.3 Tanks. Storage tanks shall be *approved* tanks conforming to the requirements of 815 KAR 10:060 Kentucky Standards of Safety.

415.8.3 Liquefied petroleum gas facilities. The construction and installation of *liquid* petroleum gas facilities shall be in accordance with the requirements of this code. The storage and *handling* of *liquid* petroleum gas systems shall conform with 815 KAR 10:060 and NFPA. The design and installation of piping, equipment and systems that utilize liquefied petroleum gas shall be in accordance with applicable provisions of NFPA 54 *listed* in Chapter 35. Liquefied petroleum gas distribution facilities shall be ventilated in accordance with the International Mechanical Code.

415.8.4 Dry cleaning plants. The construction and installation of dry cleaning plants shall be in accordance with the requirements of this code, the International Mechanical Code, the Kentucky Plumbing Code and NFPA 32. Dry cleaning solvents and systems shall be classified in accordance with the International Fire Code.

SECTION 425

DAY CARE CENTERS

425.1 Scope. The provisions of this section shall apply to *buildings* or *structures* or portions thereof, required to be licensed as *Type I* or *Type II day care center*, which are classified in Chapter 3 under Use Group E. Day care centers shall meet all applicable provisions of this code, except as specifically modified by Sections 425.1 through 425.11 for *Type I day care centers* or Sections 425.12 through 425.16 for *Type II day care centers*. *Type II day care centers* shall also comply with Sections 425.3.1, 425.4, 425.5, 425.5.1, 425.5.4, 425.6, 425.6.3, 425.7, 425.7.1, 425.9.

Exception: After school programs that are also licensed day care centers and are located in schools, shall not be made to comply with the requirements of this section where all clients of the day care and after school programs are also students of that school system.

425.2 Location and construction. *Type I day care centers* shall be limited to the location/*construction types specified* in Table 425.2 and Section 503.1.4.

425.2.1 Smoke barriers. Where day care centers with clients 24 months or younger in age or *incapable of self-preservation* are located one or more stories above the *level of exit discharge* or where day care centers are located two or more stories above the *level of exit discharge*, *smoke barriers* shall be provided to divide such stories into a minimum of two *smoke compartments*. The *smoke barriers* shall be constructed in accordance with section 709 but shall not be required to have a *fire-resistance rating*.

**TABLE 425.2
LOCATION/CONSTRUCTION TYPE LIMITATIONS TYPE I DAY CARE CENTERS**

LOCATION OF DAY CARE	SPRINKLERED BUILDING	CONSTRUCTION TYPE PERMITTED
1 Story Below LED	Yes	Any type other than 3B & 5B
<i>Story of Exit Discharge</i>	No	Any Type
1 Story Above LED	Yes	Any Type
	No	IA, IB
2 or 3 Stories Above LED	Yes	Any Type Other than IIIB, IV, & VB
>3 Stories Above LED, but Not High Rise	Yes	IA, IB, IIA
High Rise	Yes	IA, IB

425.3 Mixed use. Where centers are located in a *building* containing another occupancy not associated with the day care, the occupancy shall be completely separated from the day care center by *fire barriers* having a fire resistance rating not less than 1-hour.

Exceptions:

1. In assembly occupancies used primarily for worship
2. Centers in apartment *buildings*
 - 2.1 If the two *exit accesses* from the center enter the same *corridor* as the apartment occupancy, the *exit accesses* shall be separated in the *corridor* by a *smoke barrier* having not less than a 1-hour fire resistance rating constructed in accordance with Section 709. The *smoke barrier* shall be so located that there is an *exit* on each side of it.
 - 2.2 The door in the *smoke barrier* shall be not less than 36 inches (914 mm) wide.

425.3.1 Accessory uses. Any heating equipment in spaces occupied by children shall be provided with partitions, screens, or other means to protect children under 6 years of age from hot surfaces and open flames.

425.4. The client load established for any floor or floors shall be computed at a rate of 1 *person* for each 35 square feet (3.25 m²) of net *floor area* occupied by the *persons* being cared for who shall otherwise be referred to herein as clients.

425.5 Egress. Each floor occupied by clients shall have not less than two remote *exits*. A *mezzanine* shall be considered a floor for the purpose of this Section.

425.5.1 Length of travel (travel distance). Travel distances shall be as follows:

1. The travel distance between any room door intended as *exit access* and an *exit* shall not exceed 100 feet (30480 mm).
2. The travel distance between any point in a room and an *exit* shall not exceed 150 feet (45720 mm).

3. The travel distance between any point in a sleeping room and an *exit access* door of that room shall not exceed 50 feet (15240 mm).

Exceptions:

1. Thirty-six inches (914 mm) where serving an *occupant load* of 50 or less
2. The width required for capacity as determined by Section 1005

425.5.2 Corridor width. The minimum width of *exit access corridors* shall be 44 inches (1118 mm).

Exceptions:

1. Thirty-six inches (914 mm) where serving an *occupant load* of 50 or less
2. The width required for capacity as determined by Section 1005

425.5.3 Interior corridors. All *corridors* shall be 1-hour fire-resistance rated. The *corridor walls* shall comply with Section 708.

Exceptions:

1. This *corridor* protection shall not be required when all classrooms served by the *corridors* have at least one door directly to the outside or to an exterior balcony constructed in accordance with Section 1019.
2. As allowed by Section 1018.1
3. Toilet rooms need not be separated from the *corridors*, provided they are separated from all other spaces by *fire partitions* having not less than a 1-hour *fire-resistance rating* in accordance with Section 708.

425.5.4 Special features.

1. Every closet door latch shall be such that children can open the door from inside the closet.
2. Every bathroom door lock shall be designed to permit opening of the locked door from the outside.

425.5.5 Protection from hazards. Cooking appliances and food preparation areas shall be protected in accordance with Section 425.6.1 through 425.6.3.

425.6.1 Commercial cooking appliance. When a day care center has commercial cooking appliances such as ranges, deep fryers and/or a griddle, the following shall apply:

1. The kitchen or room in which the appliance(s) is located shall be enclosed by non-fire-resistance rated walls and ceiling designed to resist the passage of smoke. Pass-through openings and door openings shall be equipped with an assembly, which will screen possible flash fires from view; and
2. All cooking appliances shall be protected by a commercial exhaust system designed and installed in accordance with the mechanical code.

425.6.2 Domestic cooking appliance. A day care center equipped with a domestic range for food preparation which does not produce grease-laden vapors, shall comply with one of the following:

1. The kitchen or room in which the appliance is located shall be enclosed by a 1-hour fire partition constructed in accordance with Section 708. A range hood exhaust and suppression system is not required in this situation; or
2. The kitchen or room in which the appliance is located shall comply with Section 425.6.1, Item Nos. 1 and 2.

425.6.3 Non-grease-producing cooking appliances. Day care centers using non-grease-generating cooking appliances such as microwave ovens, wall ovens and crock pots, shall locate these appliances so as not to be accessible to the clients.

425.7 Interior finish. All walls and ceilings shall have a Class I or Class II finish rating in accordance with ASTM E84.

425.7.1 Floor finish. All floor coverings within a corridor and exit shall be Class I or Class II in accordance with ASTM E648.

425.8 Fire protective signaling system. A manual fire alarm system shall be provided throughout the center.

Exceptions:

1. Day care centers housed in one room
2. Day care centers with a calculated client occupant load of less than 50

425.9 Automatic fire detection system. Automatic smoke detection systems shall be provided throughout all the day care centers regulated by Section 425.1. The automatic smoke detectors shall be provided in the following locations:

1. On the ceiling in front of the doors to stairways;
2. At no greater spacing than 30-feet (9144 mm) in the corridors of each floor containing the center; and
3. In all rooms within the center that are classified as a habitable space or an occupiable space in accordance with Section 202 herein.

Exceptions:

1. Centers housed in one room.
2. Hard-wired, single-station smoke detectors may be installed in day care centers with a calculated client load of less than 50, provided the detectors can be heard through the center.

425.10 Engineers/architects law. Plans for the construction or redesign of centers having a client load calculated pursuant to Section 425.4 which exceeds 100 shall bear the seal and signature of a licensed design professional.

425.11 Barrier-free design. All new work shall comply with the applicable provisions of Chapter 11.

Exception: Church-operated day care centers.

425.12 Location and construction. Type II day care centers shall be limited to the location/construction types specified in Table 425.12

**TABLE 425.12
LOCATION/CONSTRUCTION TYPE LIMITATIONS TYPE II DAY CARE CENTERS**

LOCATION OF DAY CARE	SPRINKLED BLDG.	CONSTRUCTION TYPE PERMITTED
1 Story Below LED	Yes	Any Type
	No	Not Permitted
Story of Exit Discharge	No	Any Type
1 Story Above LED	Yes	Any Type
	No	Any Type Other than VA & VB
2 Stories Above LED	Yes	Any Type
	No	Not Permitted

425.13 Corridor width. The minimum width of *exit access corridors* shall be 36 inches.

425.14 Cooking Disclosure. A cooking disclosure form shall be completed and signed by the *owner* of a *day care center* equipped with a domestic range for food preparation, verifying that no cooking that produces grease laden vapors will take place in the home.

425.15 Barrier-free design. All new work shall comply with the applicable provisions of Section 3409.

Exception: Church-operated day care centers

425.16 Fire extinguishers. Portable fire extinguishers shall be located in conspicuous locations where readily *accessible* and immediately available for use. Fire extinguishers shall be located along normal paths of travel, unless the *building code official* determines that the hazard posed indicates the need for placement away from normal paths of travel.

SECTION 426

BED AND BREAKFAST ESTABLISHMENTS

426.1 Bed-and-breakfast homes. Bed-and-breakfast homes shall comply with the requirements of this code applicable to Use Group R-3 and the following conditions:

1. All hallways and *means of egress* serving guestrooms shall be *permanently* illuminated and emergency lighting shall be provided.
2. The maximum overnight guest *occupant load* shall be 10 and shall be posted.
3. Interconnected *smoke alarms* shall be provided in accordance with Sections 907.2.11.2, 907.2.11.3 and 907.2.11.4.
4. Each door between guest sleeping rooms and the main egress hallway or *corridor* shall be equipped with an *approved self-closing* device.
5. There shall be two remote *exits* to the outside from the ground floor.

426.2 Bed-and-breakfast inns. Bed-and-breakfast inns shall comply with the requirements of this code applicable to Use Group R-1.

SECTION 427

SUBTERRANEAN SPACES

427.1 General. The provisions of this section shall apply to developed *subterranean spaces* of any occupancy except Group H for the use of advanced industrial capability, technological sophistication, or economic productivity.

Exceptions:

1. Tourist caverns
2. Wine storage caverns
3. Gas and oil storage reservoirs
4. Hazardous waste repositories
5. Utility installations such as pumping stations
6. Working mines
7. Transportation and pedestrian tunnels
8. Aboveground *buildings* with belowground stories
9. Cut and cover underground *buildings* specifically addressed in Section 405

427.2 Referenced standards. Developed *subterranean spaces* shall comply with the requirements of this section and NFPA 520. Where NFPA 520 references other NFPA standards, those standards shall not be applicable unless specifically referenced in this code.

SECTION 428

BARRELED SPIRIT STORAGE BUILDINGS

428.1 Scope. The provisions of this section shall apply to *buildings* and *structures* utilized solely for the purpose of storing barreled spirits after manufacture during the aging process. Except as specifically modified by Sections 428.2 through 428.14, barreled spirit storage *buildings* shall meet all applicable provisions of the *Kentucky Building Code*.

428.2 Type of construction. Barreled spirit storage *buildings* shall be constructed of the following materials:

1. Non-sprinklered and sprinklered rack supported *structures* shall be constructed of any *approved* materials.
2. Pallet storage *buildings* shall be constructed of Type IIB construction. Pallet storage *buildings* shall be sprinklered in accordance with Section 903.1 of the *Kentucky Building Code*.

428.2.1 Design professional. The structural design shall bear the seal and signature of an engineer licensed in Kentucky.

428.2.2 Earthquake loads. Rack supported barreled spirit storage *buildings* shall be exempt from seismic design and Section 1613.1 of the *Kentucky Building Code*.

428.2.3 Emergency alarms. An audible alarm will be provided at the sprinkler valve house, which will be *automatically* activated in the event of water flow.

428.3 Building area. Barreled spirit storage *buildings* shall not exceed the following *areas*:

1. Non-sprinklered rack supported *structures* shall not exceed 20,000 square feet.
2. Rack supported *structures* protected throughout by an *automatic* fire suppression system shall not exceed 40,000 square feet.
3. Pallet storage *buildings* protected throughout by an *automatic* fire suppression system shall not exceed 55,000 square feet.

428.4 Building height. Barreled spirit storage *buildings* shall be one *story*, not to exceed the following heights:

1. Non-sprinklered rack supported structures shall not exceed 55'-0" in height.
2. Sprinklered rack supported structures shall not exceed 60'-0" in height.
3. Sprinklered pallet storage buildings shall not exceed 27'-0" in height.

428.5 Building location on property. The following *fire separation distances* shall be maintained between the barreled spirit storage *buildings* and any other *buildings* on the property and to the *opposite* edge of a street, alley or other public way:

1. Non-sprinklered rack supported *structures* shall have a minimum separation distance of 200 feet.
2. Sprinklered pallet storage and sprinklered rack supported *structures* shall have a minimum separation distance of 100 feet.

Exception: The *fire separation distance* may be reduced to not less than 100 feet to an adjacent sprinklered barreled spirit storage warehouse when the exposed *exterior wall* of the non-sprinklered barreled spirit storage warehouse is protected by an exterior water curtain.

428.6 Spill and runoff protection. Earthen dykes and/or containment trenches shall surround each barreled spirit storage *building* to contain spills and any fire protection water run-off.

428.7 Mezzanines. The number of *mezzanine* levels shall not exceed the following:

1. Non-sprinklered rack supported *structures* shall not exceed five (5) *mezzanine* levels.
2. Sprinklered rack supported *structures* shall not exceed six (6) *mezzanine* levels.
3. Sprinklered pallet storage *buildings* shall not have *mezzanine* levels.

428.7.1 Aggregate area of mezzanines. Rack supported barreled spirit storage *buildings* shall be exempt from Section 505.2.1 of the *Kentucky Building Code*.

428.8 Portable fire extinguishers. Pallet storage *buildings* shall have fire extinguishers installed at each *exit* door and on the forklifts used within the pallet storage *building*.

428.9 Means of egress. Each rack supported barreled spirit storage *buildings* shall have *means of egress* as required by this section and Chapter 10 of the *Kentucky Building Code*.

428.9.1 Number of exits. The first *story* and all *mezzanine* levels shall be provided with a minimum of two *exits*. *Exits* shall be located at each end of the *building* on each level and shall be enclosed or separated from the *building* interior by *fire barriers* having not less than a one hour fire resistance rating.

428.9.2 Egress doors and hardware. All egress doors shall swing in the direction of egress travel.

428.9.3 Locks and latches. Section 1008.1.9.3 shall not apply for all barreled spirit storage *buildings* when documentation from the *owner* is filed with the *permit* application confirming compliance with Federal Alcohol and Tobacco Tax and Trade Bureau requirements for security locking on barreled spirit warehouses and documenting all padlocks required by

the Bureau are removed from all exterior doors while the *building* is occupied.

428.9.4 Means of egress illumination. The *means of egress* in rack supported barreled spirit storage *buildings* shall be illuminated by the *buildings* electrical system if the *building* is to be constantly energized or natural lighting if an electrical system is not provided. The illumination level shall not be less than one (1) foot candle at the walking surface. Pallet storage *buildings* shall comply with Section 1006 of this code.

428.9.5 Exit signs. Rack supported barreled spirit storage *buildings* shall not be required to have illuminated *exit* signs, only placards and shall be exempt from Section 1011.3 of the *Kentucky Building Code*. Directional *exit* signs shall point the way to the *exit* itself. *Exit* doors shall have signs with no arrows that simply read *EXIT*. Pallet storage *building exit* signs shall comply with Section 1011.

428.10 Travel distance. The *exit access* travel distance shall not exceed the following:

1. Non-sprinklered rack supported *buildings* shall have an *exit access* travel distance not to exceed 150 feet.
2. Sprinklered pallet storage and rack supported *buildings* shall have an *exit access* travel distance not to exceed 200 feet.

428.11 Roof covering. The *roof covering* of all barreled spirit storage *buildings* shall not consist of a tar based material and shall have a Class A rating.

428.12 Automatic sprinkler system. An *automatic fire sprinkler system* shall not be required for rack supported barreled spirit storage *buildings* when they comply with Section 428 of this code.

428.13 Building ventilation and illumination. Mechanical *ventilation* and artificial illumination shall not be required, but shall not be prohibited.

428.13.1 Artificial illumination and ventilation. Artificial illumination and *ventilation* inside the barreled spirit storage *buildings* shall be *listed* for Class I, Group D and Division II hazardous locations when located within the restricted proximity of barreled bourbon.

428.14 Electrical wiring and equipment. Electrical wiring and equipment within the *building* shall be *listed* for Class II, Group D and Division II hazardous locations throughout, with the exception of ordinary electricians which are attached to the underside of the room or are located in a *penthouse* above the roof line.

**SECTION 429
CONSUMER FIREWORKS RETAIL SALES
FACILITIES**

429.1 General. Consumer *fireworks* retail sales facilities shall comply with the requirements of this code applicable to Use Group M and NFPA 1124 *listed* in Chapter 35. The provisions of this section are not applicable to *buildings* or *structures* used for the storage of consumer *fireworks*.

429.2 Definitions. The following terms are defined in Chapter 2.

CONSUMER FIREWORKS RETAIL SALES (CFRS) FACILITY.

CONSUMER FIREWORKS RETAIL SALES (CFRS) STAND.

PERMANENT.

STORE.

TEMPORARY.

429.3 Facility classification. A *Consumer Fireworks Retail Sales Facility* shall be classified as either a *permanent* or *temporary building* or *structure*.

429.3.1 Permanent buildings and structures. *Permanent buildings* and *structures* shall include a *CFRS facility* as defined in Section 3.3.29.1 or a *store* as defined in Section 3.3.74 of NFPA 1124. Facilities used primarily for the retail sales of consumer *fireworks* shall be located in detached stand alone *buildings* or *structures* and shall comply with Sections 7.1.2, 7.2, 7.3, 7.4.1, 7.4.2, 7.4.5, 7.4.6, 7.4.7, 7.4.8, 7.4.9, 7.4.10 and 7.4.11, of NFPA 1124. *Structures* containing a variety of merchandise and that are not primarily used for the retail sales of consumer *fireworks* shall comply with Section 7.5 of NFPA 1124.

429.3.2 Temporary structures. *Temporary structures* shall include a *CFRS stand*, *tent*, *canopy* or membrane *structure*. *Temporary structures* shall comply with Sections 7.1, 7.2, 7.3, 7.4.1, 7.4.2, 7.4.5, 7.4.6, 7.4.7, 7.4.8, 7.4.9, 7.4.10, 7.4.11, and 7.6 of NFPA 1124.

**SECTION 430
TEMPORARY STRUCTURES**

430.1 Definitions. The following terms are defined in Chapter 2:

AIR-INFLATED STRUCTURE.

AIR-SUPPORTED STRUCTURE.

CANOPY.

MEMBRANE STRUCTURE.

PRIVATE EVENT.

PUBLIC EVENT.

TEMPORARY STRUCTURE.

TEMPORARY STAGE.

TEMPORARY PLATFORM.

TENT.

430.2 General. All temporary structures, tents, canopies and membrane structures that are erected for a period less than 180 days shall comply with this section and all other applicable sections of this code.

430.3 State Model Approval. All tents greater than 400 square feet shall be submitted to the Department of Housing, Buildings & Construction for review and model approval to be erected in the Commonwealth. Future structural changes made to an approved tent shall be submitted for re-evaluation and approval.

430.3.1 Fees. The fee for state model approval is \$250.00. Re-evaluations of structural changes after model approval shall be \$100.00. Fees associated with a series or product line of tents shall be \$250.00 per series or product line. All fees shall be made payable to the Kentucky State Treasurer.

430.3.2 Construction Documents. A plan application and construction documents for state model approval shall include but not be limited to the following:

1. Plans drawn to minimum scale of $1/8" = 1'-0"$
2. Manufacturer's Specifications
3. Structural drawings demonstrating reaction factors for wind load for each bearing element
4. Seals and signatures of a licensed design professional for all engineered/certified tents
5. Flame Propagation Criteria for tent covering per NFPA 701

430.3.2.1 Non-certified Tent Reaction Factors.

Non-certified tent reaction factors shall be a minimum of 5lbs per square foot of exposed tent area and calculated by the formula below. This area shall be comprised of the square footage of tent area of 2 adjacent sides of a tent including the tent area of the roof as it appears in the elevation plane divided by the number of anchoring points.

$$RF = A_1 + A_2 + A_3 + A_4 \times 5 \div \# \text{ of AP}$$

where:

RF = Reaction factor expressed in pounds per number of anchoring points

A_1 = square footage of tent area on one side of tent

A_2 = square footage of tent roof area above A_1

A_3 = square footage of tent area of adjacent side of A_1

A_4 = square footage of tent roof area above A_3

AP = anchoring points

Exception: Non-certified tents designed to meet a wind speed in excess of 45 mph per manufacturer's specifications.

430.4 Site Placement. Site placement of state approved tents and temporary structures shall be submitted for review and approval by the authority having jurisdiction in accordance with Section 104.0 and KRS 198B.060(5).

Exception: Temporary structures utilized at a *private event* as defined by Chapter 2 of this code

430.4.1 Fees. Individual tent and temporary structures for site placement shall be \$125.00. Fees for groups of tents shall be accordance with Table 430.4.1

TABLE 430.4.1

AGGREGATE SQUARE FOOTAGE OF TENT AREA	AMOUNT OF FEE
0 - 2,000	\$250.00
2,001 – 5,000	\$350.00
5,001 – 10,000	\$500.00
10,001 – 15,000	\$750.00
15,001 – 20,000	\$950.00
20,001 – 30,000	\$2,000.00
30,001 – 50,000	\$2,850.00
50,001 – 70,000	\$3,250.00
70,001 – 100,000	\$4,000.00

430.4.2 Construction documents. A detailed site and floor plan for tents, canopies membrane structures and temporary structures shall be provided with each application for approval. The tent, canopy or membrane structure floor plan shall indicate details of the means of egress, seating capacity, arrangement of the seating and location and type of heating and electrical equipment. Site plan shall include distances between tents, temporary structures, buildings and distances to property lines.

430.4.2.1 Elevated Floor Systems. Any elevated floor system that supports temporary structures, membrane structures, tents and canopies shall be designed or certified by a licensed design professional documenting that such an elevated system can support the dead and live loads.

430.4.2.2 Engineered and Non-certified Tents Use Limitations: Engineered and non-certified or non-engineered tents shall not be occupied or shall be evacuated during use when the sustained winds meet or exceed 75% of the listed wind speed rating of the temporary structure. Non-certified tents shall not be used or occupied for more than a 30 day period within a single permit cycle.

Exception: Emergency/Evacuation plan as approved by the authority having jurisdiction.

430.5 Approval required. Tents and membrane structures having an area in excess of 400 square feet (37 m2) shall not

be erected, operated or maintained for any purpose without first obtaining a permit and approval from the authority having jurisdiction.

Exceptions:

1. Tents used exclusively for recreational camping purposes.
2. Fabric canopies open on all sides which comply with all of the following:
 - 2.1 Individual canopies having a maximum size of 700 square feet (65 m2).
 - 2.2 The aggregate area of multiple canopies placed side by side without a fire break clearance of 12 feet (3658 mm), not exceeding 700 square feet (65 m2) total.
 - 2.3 A minimum clearance of 12 feet (3658 mm) to all structures and other tents
3. Temporary structures utilized at a private event as defined by Chapter 2 of this code

430.6 Place of assembly. For the purposes of this chapter, a place of assembly shall include a circus, carnival, tent show, theater, skating rink, dance hall or other place of assembly in or under which persons gather for any purpose.

430.7 Permits. Permits shall be required as set forth in Section 3103 of this code.

430.8 Use period. Temporary tents, temporary structures, air-supported, air-inflated or tensioned membrane structures and canopies shall not be erected for a period of more than 180 days within a 12-month period on single premises.

430.9 Inspections. The entire tent, air-supported, air-inflated or tensioned membrane structure system shall be inspected at regular intervals, but not less than two times per permit use period, by the permittee, owner or agent to determine that the installation is maintained in accordance with this chapter.

Exception: Permit use periods of less than 30 days.

430.10 Inspection report. When required by the authority having jurisdiction, an inspection report shall be provided and shall consist of maintenance, anchors and fabric inspections.

430.11 Access, location and parking. Access location and parking for temporary tents, canopies and membrane structures shall be in accordance with this section.

430.11.1 Access. Fire apparatus access roads shall be provided in accordance with Section 506.2.2 of this code.

430.11.2 Location. Tents, canopies or membrane structures shall not be located within 20 feet (6096 mm) of lot lines, buildings, other tents, canopies or membrane structures, parked vehicles or internal combustion engines. For the purpose of determining required distances, support ropes and guy wires shall be considered as part of the temporary membrane structure, tent or canopy.

Exceptions:

1. Separation distance between membrane structures, tents and canopies not used for cooking, is not required when the aggregate floor area does not exceed 15,000 square feet (1394 m²).
2. Membrane structures, tents or canopies need not be separated from buildings when all of the following conditions are met:
 - a. The aggregate floor area of the membrane structure, tent or canopy shall not exceed 10,000 square feet (929 m²).
 - b. The aggregate floor area of the building and membrane structure, tent or canopy shall not exceed the allowable floor area including increases as indicated in the *Kentucky Building Code*.
 - c. Required means of egress provisions are provided for both the building and the membrane structure, tent or canopy, including travel distances.
 - d. Fire apparatus access roads are provided in accordance with Section 503.

430.11.3 Location of structures in excess of 15,000 square feet in area. Membrane structures having an area of 15,000 square feet (1394 m²) or more shall be located not less than 50 feet (15 240 mm) from any other tent or structure as measured from the sidewall of the tent or membrane structure unless joined together by a corridor.

430.11.3.1 Connecting corridors. Tents or membrane structures are allowed to be joined together by means of corridors. Exit doors shall be provided at each end of such corridor. On each side of such corridor and approximately opposite each other, there shall be provided openings not less than 12 feet in total aggregate (3658 mm) width.

430.11.3.2 Fire break. Membrane structures where the aggregate floor area is greater than 15,000 square feet shall have an unobstructed fire break passageway or fire road not less than 12 feet (3658 mm) wide and free from guy ropes or other obstructions shall be maintained on all sides of all tents, canopies and membrane structures.

430.12 Anchorage required. Tents, canopies or membrane structures and their appurtenances shall be adequately roped, braced and anchored to withstand the elements of weather and prevent against collapsing. Anchoring shall be in accordance with Industrial Fabrics Association Procedural Handbook for the Safe Installation and Maintenance of

Tentage or other methods as approved by the authority having jurisdiction.

430.13 Seating arrangements. Seating in tents, canopies or membrane structures shall be in accordance with Chapter 10 of this code.

430.14 Means of egress. Means of egress for temporary tents, canopies and membrane structures shall be in accordance with Sections 430.14.1 through 430.14.8.

430.14.1 Distribution. Exits shall be spaced at approximately equal intervals around the perimeter of the tent, canopy or membrane structure, and shall be located such that all points are 100 feet (30 480 mm) or less from an exit.

430.14.2 Number. Tents, canopies or membrane structures or a usable portion thereof shall have at least one exit and not less than the number of exits required by Table 430.14.2. The total width of means of egress in inches (mm) shall not be less than the total occupant load served by means of egress multiplied by 0.2 inches (5 mm) per person.

**TABLE 430.14.2
Minimum Number of Means of Egress and Means of Egress Widths From Temporary Membrane Structures, Tents and Canopies**

OCCUPANT LOAD	MINIMUM NUMBER OF MEANS OF EGRESS	MINIMUM WIDTH OF EACH MEANS OF EGRESS (INCHES)
		TENT OR CANOPY
10 to 199	2	72
200 to 499	3	72
500 to 999	4	96
1,000 to 1,999	5	120
2,000 to 2,999	6	120
Over 3,000 ^a	7	120

430.14.3 Exit openings from tents. Exit openings from tents shall remain open unless covered by a flame-resistant curtain. The curtain shall comply with the following requirements:

1. Curtains shall be free sliding on a metal support. The support shall be a minimum of 80 inches (2032 mm) above the floor level at the exit. The curtains shall be so arranged that, when open, no part of the curtain obstructs the exit.
2. Curtains shall be of a color, or colors, that contrast with the color of the tent.

430.14.4 Doors. Exit doors shall swing in the direction of exit travel. To avoid hazardous air and pressure loss in air-supported membrane structures, such doors shall be automatic closing against operating pressures. Opening force at the door edge shall not exceed 15 pounds (66 N).

430.14.5 Aisle. The width of aisles without fixed seating shall be in accordance with the following:

1. In areas serving employees only, the minimum aisle width shall be 24 inches (610 mm) but not less than the width required by the number of employees served.
2. In public areas, smooth-surfaced, unobstructed aisles having a minimum width of not less than 44 inches (1118 mm) shall be provided from seating areas, and aisles shall be progressively increased in width to provide, at all points, not less than 1 foot (305 mm) of aisle width for each 50 persons served by such aisle at that point.

430.14.5.1 Arrangement and maintenance. The arrangement of aisles shall be subject to approval by the authority having jurisdiction and shall be maintained clear at all times during occupancy.

430.14.6 Exit signs. Exits shall be clearly marked. Exit signs shall be installed at required exit doorways and where otherwise necessary to indicate clearly the direction of egress when the exit serves an occupant load of 50 or more.

1. Two separate circuits, one of which shall be separate from all other circuits, for occupant loads of 300 or less; or
2. Two separate sources of power, one of which shall be an approved emergency system, shall be provided when the occupant load exceeds 300. Emergency systems shall be supplied from storage batteries or from the on-site generator set and the system shall be installed in accordance with the National Electrical Code

430.14.7 Means of egress illumination. Means of egress shall be illuminated with light having an intensity of not less than 1 foot-candle (11 lux) at floor level while the structure is occupied. Fixtures required for means of egress illumination shall be supplied from a separate circuit or source of power.

430.14.8 Maintenance of means of egress. The required width of exits, aisles and passageways shall be maintained at all times to a public way. Guy wires, guy ropes and other support members shall not cross a means of egress at a height of less than 8 feet (2438 mm). The surface of means of egress shall be maintained in an approved manner.

430.15 General. All tents, canopies and membrane structures, both temporary and permanent, shall be in

accordance with this section. Permanent tents, canopies and membrane structures shall also comply with the *International Building Code*.

430.15.1 Flame propagation performance treatment. Before a permit is granted, the owner or agent shall file with the authority having jurisdiction a certificate executed by an approved testing laboratory certifying that the tents; canopies and membrane structures and their appurtenances; sidewalls, drops and tarpaulins; floor coverings, bunting and combustible decorative materials and effects, including sawdust when used on floors or passageways, shall be composed of material meeting the flame propagation performance criteria of NFPA 701 or shall be treated with a flame retardant in an approved manner and meet the flame propagation performance criteria of NFPA 701, and that such flame propagation performance criteria are effective for the period specified by the permit.

430.15.2 Label. Membrane structures, tents or canopies shall have a permanently affixed label bearing the identification of size and fabric or material type

430.15.3 Certification. An affidavit or affirmation shall be submitted to the authority having jurisdiction and a copy retained on the premises on which the tent or air-supported structure is located. The affidavit shall attest to the following information relative to the flame propagation performance criteria of the fabric:

1. Names and address of the owners of the tent, canopy or air-supported structure.
2. Date the fabric was last treated with flame-retardant solution.
3. Trade name or kind of chemical used in treatment.
4. Name of person or firm treating the material.
5. Name of testing agency and test standard by which the fabric was tested.

430.15.4 Combustible materials. Hay, straw, shavings or similar combustible materials shall not be located within any tent, canopy or membrane structure containing assembly occupancy, except the materials necessary for the daily feeding and care of animals. Sawdust and shavings utilized for a public performance or exhibit shall not be prohibited provided the sawdust and shavings are kept damp. Combustible materials shall not be permitted under stands or seats at any time. The areas within and adjacent to the tent or air-supported structure shall be maintained clear of all combustible materials or vegetation that could create a fire hazard within 20 feet (6096 mm) of the structure. Combustible trash shall be removed at least once a day from the structure during the period the structure is occupied by the public.

430.15.5 Smoking. Smoking shall not be permitted in tents, canopies or membrane structures. Approved “No Smoking” signs shall be conspicuously posted.

430.15.6 Open or exposed flame. Open flame or other devices emitting flame, fire or heat or any flammable or combustible liquids, gas, charcoal or other cooking device or any other unapproved devices shall not be permitted inside or located within 20 feet (6096 mm) of the tent, canopy or membrane structures while open to the public unless approved by the authority having jurisdiction.

430.15.7 Fireworks. Fireworks shall not be used within 100 feet (30 480 mm) of tents, canopies or membrane structures.

430.15.8 Spot lighting. Spot or effect lighting shall only be by electricity, and all combustible construction located within 6 feet (1829 mm) of such equipment shall be protected with approved noncombustible insulation not less than 9.25 inches (235 mm) thick.

430.15.9 Safety film. Motion pictures shall not be displayed in tents, canopies or membrane structures unless the motion picture film is safety film.

430.15.10 Clearance. There shall be a minimum clearance of at least 3 feet (914 mm) between the fabric envelope and all contents located inside the tent or membrane structure.

430.15.11 Portable fire extinguishers. Portable fire extinguishers shall be provided as required by Section 906 of this code.

430.15.12 Fire protection equipment. Fire hose lines, water supplies and other auxiliary fire equipment shall be maintained at the site in such numbers and sizes as required by the authority having jurisdiction.

430.15.13 Occupant load factors. The occupant load allowed in an assembly structure, or portion thereof, shall be determined in accordance with Chapter 10 of this code.

430.15.14 Heating and cooking equipment. Heating and cooking equipment shall be in accordance with Sections 430.15.14.1 through 430.15.14.7.

430.15.14.1 Installation. Heating or cooking equipment, tanks, piping, hoses, fittings, valves, tubing and other related components shall be installed as specified in the *International Mechanical Code* and the *National Fuel Gas Code (NFPA 54)*, and shall be approved by the authority having jurisdiction.

430.15.14.2 Venting. Gas, liquid and solid fuel-burning equipment designed to be vented shall be vented to the outside air as specified

in the *National Fuel Gas Code (NFPA 54)* and the *International Mechanical Code*. Such vents shall be equipped with approved spark arresters when required. Where vents or flues are used, all portions of the tent, canopy or membrane structure shall be not less than 12 inches (305 mm) from the flue or vent.

430.15.14.3 Location. Cooking and heating equipment shall not be located within 10 feet (3048 mm) of exits or combustible materials.

430.15.14.4 Operations. Operations such as warming of foods, cooking demonstrations and similar operations that use solid flammables, butane or other similar devices which do not pose an ignition hazard, shall be approved by the authority having jurisdiction provided that all other applicable requirements of this section are met.

430.15.14.5 Cooking tents. Tents where cooking is performed shall be separated from other tents, canopies or membrane structures by a minimum of 20 feet (6096 mm).

430.15.14.6 Outdoor cooking. Outdoor cooking that produces sparks or grease-laden vapors shall not be performed within 20 feet (6096 mm) of a tent, canopy or membrane structure.

430.15.14.7 Electrical heating and cooking equipment. Electrical cooking and heating equipment shall comply with the *National Electrical Code (NFPA 70)*.

430.15.15 LP-gas. The storage, handling and use of LP-gas and LP-gas equipment shall be in accordance with Sections 430.15.15.1 through 430.15.15.3.

430.15.15.1 General. LP-gas equipment such as tanks, piping, hoses, fittings, valves, tubing and other related components shall be approved and in accordance with Chapter 38 and with the *NFPA 54 National Fuel Gas Code*.

430.15.15.2 Location of containers. LP-gas containers shall be located outside. Safety release valves shall be pointed away from the tent, canopy or membrane structure.

430.15.15.2.1 Containers 500 gallons or less. Portable LP-gas containers with a capacity of 500 gallons (1893 L) or less shall have a minimum separation between the container and structure not less than 10 feet (3048 mm).

430.15.15.2.2 Containers more than 500 gallons. Portable LP-gas containers with a capacity of more than

500 gallons (1893 L) shall have a minimum separation between the container and structures not less than 25 feet (7620mm).

430.15.15.3 Protection and security. Portable LP-gas containers, piping, valves and fittings which are located outside and are being used to fuel equipment inside a tent, canopy or membrane structure shall be adequately protected to prevent tampering, damage by vehicles or other hazards and shall be located in an approved location. Portable LP-gas containers shall be securely fastened in place to prevent unauthorized movement.

430.15.16 Flammable and combustible liquids. The storage of flammable and combustible liquids and the use of flammable-liquid-fueled equipment shall be in accordance with Sections 430.15.16.1 through 430.15.16.3.

430.15.16.1 Use. Flammable liquid-fueled equipment shall not be used in tents, canopies or membrane structures.

430.15.16.2 Flammable and combustible liquid storage. Flammable and combustible liquids shall be stored outside in an approved manner not less than 50 feet (15 240 mm) from tents, canopies or membrane structures. Storage shall be in accordance with this code and Chapter 34 of the International Fire Code.

430.15.16.3 Refueling. Refueling shall be performed in an approved location not less than 20 feet (6096 mm) from tents, canopies or membrane structures.

430.15.17 Display of motor vehicles. Liquid- and gas-fueled vehicles and equipment used for display within tents, canopies or membrane structures shall be in accordance with Sections 430.15.17.1 through 430.15.17.5.3.

430.15.17.1 Batteries. Batteries shall be disconnected in an appropriate manner.

430.15.17.2 Fuel systems. Vehicles or equipment shall not be fueled or defueled within the tent, canopy or membrane structure.

430.15.17.2.1 Quantity limit. Fuel in the fuel tank shall not exceed one-quarter of the tank capacity or 5 gallons (19 L), whichever is less.

430.15.17.2.2 Inspection. Fuel systems shall be inspected for leaks.

430.15.17.2.3 Closure. Fuel tank openings shall be locked and sealed to prevent the escape of vapors.

430.15.17.3 Location. The location of vehicles or equipment shall not obstruct means of egress.

430.15.17.4 Places of assembly. When a compressed natural gas (CNG) or liquefied petroleum gas (LP-gas) powered vehicle is parked inside a place of assembly, all the following conditions shall be met:

1. The quarter-turn shutoff valve or other shutoff valve on the outlet of the CNG or LP-gas container shall be closed and the engine shall be operated until it stops. Valves shall remain closed while the vehicle is indoors.
2. The hot lead of the battery shall be disconnected.
3. Dual-fuel vehicles equipped to operate on gasoline and CNG or LP-gas shall comply with this section and Sections 430.15.17.1 through 430.15.17.5.3 for gasoline-powered vehicles.

430.15.17.5 Competitions and demonstrations. Liquid and gas-fueled vehicles and equipment used for competition or demonstration within a tent, canopy or membrane structure shall comply with Sections 430.15.17.5.1 through 430.15.17.5.3.

430.15.17.5.1 Fuel storage. Fuel for vehicles or equipment shall be stored in approved containers in an approved location outside of the structure in accordance with Section 430.15.16.2.

430.15.17.5.2 Fueling. Refueling shall be performed outside of the structure in accordance with Section 430.15.16.3.

430.15.17.5.3 Spills. Fuel spills shall be cleaned up immediately.

430.15.18 Separation of generators. Generators and other internal combustion power sources shall be separated from tents, canopies or membrane structures by a minimum of 20 feet (6096 mm) and shall be isolated from contact with the public by fencing, enclosure or other approved means.

430.15.19 Standby personnel. When, in the opinion of the building code official, it is essential for public safety in a tent, canopy or membrane structure used as a place of assembly or any other use where people congregate, because of the number of persons, or the nature of the performance, exhibition, display, contest or activity, the owner, agent or lessee shall employ one or more qualified persons, as required and approved, to remain on duty during the times such

places are open to the public, or when such activity is being conducted.

430.15.19.1 Duties Before each performance or the start of such activity, standby personnel shall keep diligent watch for fires during the time such place is open to the public or such activity is being conducted and take prompt measures for extinguishment of fires that occur and assist in the evacuation of the public from the structure.

430.15.19.2 Crowd managers. There shall be trained crowd managers or crowd manager supervisors at a ratio of one crowd manager/supervisor for every 250 occupants, as approved.

430.15.20 Vegetation removal. Where public safety is compromised as determined by the authority having jurisdiction Combustible vegetation shall be removed from the area occupied by a tent, canopy or membrane structure, and from areas within 30 feet (9144 mm) of such structures.

430.15.21 Waste material. The floor surface inside tents, canopies or membrane structures and the grounds outside and within a 30-foot (9144 mm) perimeter shall be kept clear of combustible waste. Such waste shall be stored in approved containers until removed from the premises.

430.16 Temporary Stages Platforms and Overhead Support Structures.

430.16.1 Temporary Stages Platforms and Overhead Support Structures. All temporary stages, platforms and overhead support structures associated with temporary stages and temporary platforms erected for less than 30 days shall be in accordance with this section.

Exceptions:

1. Temporary stages and platforms that are less than 1,000 square feet and 8,600 lbs. and are limited to 12 individuals plus lights, sound, scenery and equipment on the stage does not exceed 3,600 lbs. and has a height of less than 48 inches measure from grade to performing surface.
2. A temporary stage/ platform, not exceeding **600 sq. ft.**, that is on a wheeled vehicle that is not designed as a temporary stage or platform is deemed to comply if the weight per axle of the wheeled vehicle is not exceeded by the total weight of all persons and items located on the stage.

430.16.2 Overhead Support Structures. Overhead support structures associated with temporary stages

and temporary platforms shall be designed, erected and maintained in accordance with ANSI E1.21 *Temporary Ground-Supported Overhead Structures Used To Cover The Stage Areas And Support Equipment In The Production Of Outdoor Entertainment Events* and applicable sections of this code.

430.16.3 Handrails, Ramps, Guards and Stairways. Handrails, ramps, guards and stairways shall be constructed as required by Chapter 10 of this code.

430.16.4 Elevated Floor Systems. Any elevated floor system that supports temporary stages or platforms shall be designed or certified by a licensed design professional documenting that such an elevated system can support the dead and live loads.

CHAPTER 5
GENERAL BUILDING HEIGHTS AND AREAS

SECTION 503
GENERAL BUILDING HEIGHT AND AREA
LIMITATIONS

The following subsection has been added to Section 503 of the 2012 International Building Code.

503.1.4 Day care centers. Day care center location and construction type shall be further limited in accordance with Tables 425.2 and 425.12 in *addition* to compliance with the height and *area* limitations of Table 503 for the *building* construction type.

SECTION 506
BUILDING AREA MODIFICATIONS

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* constructed in accordance with the Section 503.2 *Specifications* of the International Fire Code.

SECTION 507
UNLIMITED AREA BUILDINGS

507.3 Sprinklered, one story. The *area* of a one-story, Group B, F, M or S *building* or a one-story Group A-4 *building*, of other than Type V construction, shall not be limited when the *building* is provided with an *automatic sprinkler system* throughout in accordance with Section 903.3.1.1 and is surrounded and adjoined by *public ways* or *yards* not less than 60 feet (18288) in width.

Exceptions:

1. *Buildings* and *structures* of Types I and II construction for rack storage facilities that do not have access by the public shall not be limited in height, provided that such *buildings* conform to the requirements of Section 507.3 and 903.3.1.1 and Chapter 32 of the International Fire Code.

2. The *automatic sprinkler system* shall not be required over the *spectator seating area* or in *areas* occupied for indoor participant sports, such as tennis, skating, swimming and equestrian activities, in occupancies in Group A-4, provided that:

2.1 *Exit* doors directly to the outside are provided for occupants of the participant sports *areas*; and

2.2 The *building* is equipped with a *fire alarm system* with *manual fire alarm boxes* installed in accordance with Section 907; and

2.3 All other *areas* of the *building* are an *automatic sprinkler system*.

SECTION 510
SPECIAL PROVISIONS

The following subsection has been added to Section 510 of the 2012 International Building Code.

510.10 Use Group R. In *buildings* of Type IIB, IIIB or VB construction with an occupancy of R, the first floor shall not be occupied for any other occupancy classification unless the R occupancy is separated from the other occupancies, whether along side or below the R occupancy, by a *horizontal assembly* and *fire barrier* constructed to afford a 1-hour fire resistance rating and the *exits* from the residential floors are separately enclosed in accordance with the requirements of Chapter 10.

Exceptions:

1. *Buildings* protected throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2 where allowed.
2. Uses within live/*work units*, complying with Section 419, are not considered separate occupancies.

**CHAPTER 7
FIRE AND SMOKE PROTECTION FEATURES**

**SECTION 703
FIRE-RESISTANCE RATINGS
AND FIRE TESTS**

703.2.3 Restrained classification. Fire-resistance-rated assemblies tested under ASTM E 119 or UL 263 shall not be considered to be restrained unless evidence satisfactory to the *code official* is furnished by the *licensed design professional* showing that the construction qualifies for a restrained classification in accordance with ASTM E 119 or UL 263. Restrained construction shall be identified on the plans.

**SECTION 706
FIRE WALLS**

706.3 Materials. *Fire walls* shall be constructed of *approved masonry* or *concrete* materials that provide the *strength* and *fire-resistance rating* as *specified* by this code.

**SECTION 718
CONCEALED SPACES**

718.4.2 Groups R-1 and R-2. *Draftstopping* shall be provided in *attics*, *mansards*, *overhangs* or other concealed roof spaces of Group R-2 *buildings* with three or more *dwelling units* and in all Group R-1 *buildings*. *Draftstopping* shall be installed above, and in line with, *sleeping unit* and *dwelling unit* separation *walls* that do not extend to the underside of the roof sheathing above.

Exceptions:

1. Where *corridor walls* provide a *sleeping unit* or *dwelling unit* separation, *draftstopping* shall only be required above one of the *corridor walls*.
2. *Draftstopping* is not required in *buildings* equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.
3. In occupancies in Group R-2 that do not exceed four *stories above grade plane*, the

attic space shall be subdivided by *draftstops* into *areas* not exceeding 3,000 square feet (279 m²) or above every two *dwelling units*, whichever is smaller.

4. *Draftstopping* is not required in *buildings* equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.2, provided that *automatic* sprinklers are also installed in the combustible concealed space where the *draftstopping* is being omitted.
5. When tenant, guestroom and *dwelling unit* separation *walls* are constructed to the underside of a fire-resistance-rated floor/ceiling assembly or to a ceiling with a 60-minute finish rating, the *attic draftstopping* complying with Section 718.4.3 shall be deemed equivalent.

718.5 Combustible materials in concealed spaces in Type I or II construction. Combustible materials shall not be permitted in concealed spaces of *buildings* of Type I or II construction.

Exceptions:

1. Combustible materials in accordance with Section 603.
2. Combustible materials exposed within plenums complying with Section 602 of the *International Mechanical Code*.
3. Class A *interior finish* materials classified in accordance with Section 803.
4. Combustible piping within partitions or *shaft enclosures* installed in accordance with the provisions of this code.
5. Combustible piping within concealed ceiling spaces installed in accordance with the *International Mechanical Code* and the *Kentucky Plumbing Code*
6. Combustible insulation and covering on pipe and tubing, installed in concealed spaces other than plenums, complying with Section 720.7.

**CHAPTER 9
FIRE PROTECTION SYSTEMS**

**SECTION 901
GENERAL**

901.2 Fire protection systems. *Fire protection systems shall be installed, repaired, operated and maintained in accordance with this code and the Kentucky Standards of Safety (815 KAR 10:060).*

901.6.2 Fire alarm systems. *Fire alarm systems shall be monitored by an approved supervising station.*

Exceptions:

1. Single and multiple-station *smoke alarms* required by Section 907.2.10.
2. *Smoke detectors* in Group I-3 occupancies.
3. *Supervisory service* is not required for *automatic sprinkler systems* in one- and two-family *dwellings*.
4. Day care centers with 100 or less clients.
5. Places of Religious Worship or other similar religious facilities.

902.1 Definitions. *The definition of the term “CONSTANTLY ATTENDED LOCATION” is hereby DELETED from Chapter 2 of the 2012 International Building Code.*

**SECTION 903
AUTOMATIC SPRINKLER SYSTEMS**

903.1.1 Alternative protection. *Alternative automatic fire-extinguishing systems complying with 904 shall be permitted in lieu of automatic sprinkler protection where recognized by the applicable standard and approved by the building official.*

903.2.1.1 Group A-1. *An automatic sprinkler system shall be provided throughout a fire area containing a Group A-1 occupancy where one of the following conditions exists:*

1. The *fire area* exceeds 12,000 square feet (1115 m²).
2. The *fire area* is located on a floor other than the *level of exit discharge*.

903.2.1.2 Group A-2. *An automatic sprinkler system shall be provided throughout a fire area containing Group A-2 occupancy where one of the following conditions exists:*

1. The *fire area* exceeds 5,000 square feet (465 m²);
2. The *fire area* has an *occupant load* of 300 or more; or
3. The *fire area* is located on a floor other than the *level of exit discharge*.

903.2.1.3 Group A-3. *An automatic sprinkler system shall be provided throughout a fire area containing a Group A-3 occupancy where one of the following conditions exists:*

1. The *fire area* exceeds 12,000 square feet; or
2. The *fire area* is located on a floor other than the *level of exit discharge*.

Exceptions:

1. Places of Religious Worship and similar religious facilities / *buildings* utilized for worship or religious fellowship.
2. *Areas* used exclusively as participant sports *areas* where the main *floor area* is located at the same level as the *level of exit discharge* of the main entrance and *exit*.

903.2.1.4 Group A-4. *An automatic sprinkler system shall be provided throughout a fire area containing a Group A-4 occupancy where one of the following conditions exists:*

1. The *fire area* exceeds 12,000 square feet (1115 m²); or
2. The *fire area* is located on a floor other than the *level of exit discharge*.

Exception: *Areas* used exclusively as participant sports *areas* where the main *floor area* is located at the same level as the *level of exit discharge* of the main entrance and *exit*.

903.2.8 Group R. *An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area.*

903.2.8.1 Group R-1. *An automatic sprinkler system shall be provided throughout buildings with a Group R-1 fire area.*

Exceptions:

1. If a guestroom is not more than three (3) stories above the lowest level of exit discharge and each guestroom has at least one (1) door leading directly to an exterior exit access that leads directly to approved exits
2. A residential sprinkler system installed in accordance with 903.3.1.2 shall be allowed in buildings, or portions thereof, of Group R-1.

903.2.8.2 Group R-2 and R-3. An *automatic sprinkler system* shall be provided throughout all buildings with a Group R-2 and R-3 fire area where more than two (2) stories in height, including basements.

Exceptions:

1. A residential sprinkler system installed in accordance with 903.3.1.2 shall be allowed in buildings, or portions thereof, of Group R-2 and R-3.
2. Bed-and-breakfast homes as defined in Section 310.2

903.2.8.3 Group R-4. An *automatic sprinkler system* shall be provided throughout all buildings with a Group R-4 fire area with more than eight (8) occupants.

Exception: An *automatic sprinkler system* installed in accordance with 903.3.1.2 or 903.3.1.3 shall be allowed in Group R-4 facilities.

903.3.1.1.1 Exempt locations. *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 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 *building official*
3. Generator and transformer rooms 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 2 hours
4. In rooms or *areas* that are of noncombustible construction with wholly noncombustible contents
5. Spaces or *areas* in telecommunications *buildings* used exclusively for telecommunications equipment, associated electrical power

distribution equipment, batteries and standby engines, provided those spaces or *areas* are equipped throughout with an *automatic fire alarm system* and are separated from the remainder of the *building* by a *wall* with a *fire-resistance rating* of not less than 1 hour and a *floor/ceiling assembly* with a *fire-resistance rating* of not less than 2 hours.

6. In elevator machine rooms fully enclosed with 2-hour fire-resistance-rated construction and where signs are posted on the entry door and within the room to prohibit storage of any kind.

903.3.1.3 NFPA 13D sprinkler systems. *Automatic sprinkler systems* installed in one- and two-family *dwelling*s, Group R-3 and R-4 residences and *townhouses* shall be permitted to be installed throughout in accordance with NFPA 13D.

903.3.5 Water supplies. Water supplies for *automatic sprinkler systems* shall comply with this section and the standards referenced in 903.3.1. The potable water supply shall be protected against backflow by two (one-way) check valves, one of which may be an alarm check valve, installed at the point where the *automatic sprinkler system* piping is connected to the domestic water piping.

903.3.5.1 Underground installations. A combination water supply line shall be installed in accordance with the Kentucky Plumbing Code or KRS 198B.550 thru 198B.630. At the point where the water supply splits, one line serving the domestic water supply and the other to supply the fire protection sprinkler system, the domestic water supply line installation shall comply with the Kentucky Plumbing Code while the supply line for the fire protection sprinkler system shall be installed in accordance with KRS 198B.550 thru 198B.630.

Exception: A water supply line serving a system installed by a Kentucky licensed plumber in accordance with NFPA 13D.

903.3.5.2 Domestic services. Where the domestic services provides the water supply for the *automatic sprinkler system*, the supply shall be in accordance with this section.

903.3.5.2.1 Limited area sprinkler systems. Limited *area* sprinkler systems serving fewer than 20 sprinklers on any single connection are permitted to be connected to the domestic service where a

wet *automatic* standpipe is not available. Limited *area* sprinkler systems connected to domestic water supplies shall comply with each of the following requirements:

1. Valves shall not be installed between the domestic water riser control valve and the sprinklers.

Exception: An *approved* indicating control valve supervised in the open position in accordance with Section 903.4

2. The domestic service shall be capable of supplying the simultaneous domestic demand and the sprinkler demand required to be hydraulically calculated by NFPA 13, NFPA 13D or NFPA 13R.

903.3.5.2.2 Residential combination services. A single combination water supply shall be allowed provided that the domestic demand is added to the sprinkler demand as required by NFPA 13R.

903.4.1 Monitoring. Alarm, supervisory and *trouble signals* shall be distinctly different and shall be *automatically* transmitted to an *approved* central station, remote *supervising station* or proprietary *supervising station* as defined in NFPA 72.

Exceptions:

1. Underground key or hub valves in roadway boxes provided by the municipality or public utility are not required to be monitored.
2. Backflow prevention device test valves, located in limited *area* sprinkler system supply piping, shall be locked in the open position. In occupancies required to be equipped with a *fire alarm system*, the backflow preventer valves shall be electrically supervised by a tamper switch installed in accordance with NFPA 72 and separately annunciated.

**SECTION 904
ALTERNATIVE AUTOMATIC FIRE
EXTINGUISHING SYSTEMS**

904.12 Water mist systems. Water mist fire-extinguishing systems shall be installed, maintained, periodically inspected and tested in accordance with NFPA 750 and their listing.

**SECTION 905
STANDPIPE SYSTEMS**

905.2 Installation standards. Standpipe systems required by this code shall be installed in accordance with this section and NFPA 14 as referenced herein.

905.2.1 Piping design. The riser piping, supply piping and the water service piping shall be hydraulically designed or pipe scheduled in accordance with NFPA 14 as referenced in Chapter 35 of this code. The system piping shall be sized to maintain the minimum residual pressure of 100 psi (6.9 bar) at the outlet of the hydraulically most remote 2 ½ -inch (63.5-mm) hose connection and 65 psi (4.5 bar) at the outlet of the hydraulically most remote 1 ½ -inch (38.1-mm) hose station.

Exception: The residual pressures of 100 psi (6.9 bar) and 65 psi (4.5 bar) are not required in *buildings* equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 and where the highest floor level is not more than 150 feet (45720-mm) above the lowest level of fire *Department* vehicle access.

**SECTION 907
FIRE ALARM AND DETECTION SYSTEMS**

907.2.1.1 System initiation in Group A occupancies with an occupant load of 1,000 or more. Activation of the fire alarm in Group A occupancies with an *occupant load* of 1,000 or more shall initiate a signal using an *emergency voice/alarm communications* system in accordance with Section 907.5.2.2.

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

Exceptions:

1. Group E occupancies with an *occupant load* of less than 50.
2. *Manual fire alarm boxes* are not required in Group E occupancies where all the following apply:
 - 2.1 Interior *corridors* are protected by *smoke detectors* with alarm verification.
 - 2.2 Auditoriums, cafeterias, gymnasiums and the like 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 Off-premises monitoring is provided.
 - 2.5 The capability to activate the evacuation signal from a central point is provided.

- 2.6 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*, the notification appliances will activate on sprinkler water flow and manual activation is provided from a normally occupied location.
4. Modular or portable educational buildings or clusters of such buildings in which the main building fire alarm is extended to the buildings or in which single-station smoke detectors are installed under the following conditions:
 - 4.1 Individual *buildings* or cluster of *buildings* with a total aggregate *floor area* of not more than 7200 square feet (672 m²).
 - 4.2 Each modular or portable *building* is separated from all other school *buildings* on the campus by a minimum horizontal distance of 10 feet (3048 mm).
 - 4.3 *Smoke alarms* are installed in each classroom and wired in series so as to sound an alarm in each classroom of the *building* or cluster of *buildings*. Spacing shall be 30 feet (9144mm) on center in *corridors* and 900 square feet (84m²) per detector in open spaces, or in accordance with the manufacturer specifications.

907.2.6.2 Group I-2. *Corridors* in *nursing homes* (both intermediate care and skilled nursing facilities), *detoxification facilities* and permitted to be open to the *corridors* by section 407.1 shall be equipped with an *automatic* fire detection system. *Hospitals* shall be equipped with smoke detection as required in section 407.1.

907.2.7.1 Occupant notification. During times that the *building* is occupied, the initiation of a signal from a *manual fire alarm box* or from a waterflow switch shall not be required to activate the *alarm notification appliances* when an alarm signal is activated from which evacuation instructions shall be initiated over an *emergency voice* alarm communication system installed in accordance with Section 907.5.2.2.

907.2.11.3 Interconnection. Where more than one *smoke alarm* is required to be installed within an individual *dwelling unit* in Group R-2, R-3 or R-4, or within an individual guestroom or suite in Group R-1, the *smoke alarms* shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.

Exceptions:

1. *Smoke alarms* that are permitted to be solely battery operated in accordance with 907.2.11.4 are not required to be interconnected.
2. *Smoke alarms* in existing *areas* are not required to be interconnected where *alterations* or *repairs* that 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 interconnection without the removal of *interior finishes*.

907.2.11.4 Power source. In new construction, required *smoke alarms* shall receive their primary power from the *building* wiring where such wiring is served from a commercial source and shall be equipped with a battery backup. *Smoke alarms* shall emit a signal when the batteries are low. Wiring shall be *permanent* and without a disconnecting switch other than as required for overcurrent protection.

Exceptions:

1. *Smoke alarms* are not required to be equipped with battery backup in Group R-1 where they are connected to an emergency electrical system.
2. *Smoke alarms* are permitted to be solely battery operated in existing *buildings*, *buildings* not served from a commercial power source and in existing *areas* where *alterations* or *repairs* 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 *building* wiring without the removal of *interior finishes*.

907.2.13 High-rise buildings. *High-rise buildings* shall be provided with an *automatic smoke detection system* in accordance with Section 907.2.13.1, a fire department communication system in accordance

with Section 907.2.13.2 and an *emergency voice*/alarm communication system in accordance with Section 907.5.2.2.

Exceptions:

1. Airport traffic control towers in accordance with Sections 907.2.22 and 412.
2. *Open parking garages* in accordance with Section 406.5.
3. *Buildings* with an occupancy in Group A-5 in accordance with Section 303.1.
4. Low-hazard special occupancies in accordance with Section 503.1.1.
5. *Buildings* with an occupancy in Group H-1, H-2 or H-3 in accordance with Section 415.
6. In Group I-1 and I-2 occupancies, occupant notification shall be broadcast by the *emergency voice*/alarm communication system.

907.2.13.2 Fire Department communication system. An *approved* two-way, fire department communication system designed and installed in accordance with NFPA 72 shall be provided for fire department use. It shall operate between a *fire command center* complying with 911 and elevators, elevator machine rooms not located on the top of the floor of a *building*, elevator lobbies, emergency and standby power rooms, fire pump rooms, *areas* of refuge and inside enclosed *exit stairways*. The fire department communication device shall be provided at each floor level within the enclosed *stairway*.

Exception: Fire Department radio systems where *approved* by the fire department.

907.2.18.2 Alarm required. Activation of the smoke control system shall activate an audible alarm at an *approved* receiving station *listed* in 904.3.1

907.3 Fire safety functions. *Automatic fire detectors* utilized for the purpose of performing *fire safety functions* shall be connected to the *building's fire alarm control unit* where a *fire alarm system* is required by Section 907.2. Detectors shall, upon actuation, perform the intended function and activate the *alarm notification appliances*. In *buildings* not equipped with a *fire alarm system*, the *automatic fire detector* shall be powered by normal electrical service and, upon actuation, perform the intended function. The detectors shall be located in accordance with NFPA 72.

907.3.1 Duct smoke detectors. *Smoke detectors* installed in ducts shall be *listed* for the air velocity, temperature and humidity present in the duct. Duct *smoke detectors* shall be connected to the *building's*

fire alarm control unit when a *fire alarm system* is required by Section 907.2. Activation of a duct *smoke detector* shall initiate a visible and audible *supervisory signal* and shall perform the intended fire safety function in accordance with this code and the *International Mechanical Code*. Duct *smoke detectors* shall not be used as a substitute for required open area detection.

Exception: In occupancies not required to be equipped with a *fire alarm system*, actuation of a *smoke detector* shall activate a visible and an audible signal in an *approved* location. *Smoke detector* trouble conditions shall activate a visible or audible signal in an *approved* location and shall be identified as air duct detector trouble.

907.5 Occupant notification systems. A *fire alarm system* shall annunciate at the *fire alarm control unit* and shall initiate occupant notification upon activation, in accordance with Sections 907.5.1 through 907.5.2.3.4. Where a *fire alarm system* is required by another section of this code, it shall be activated by:

1. *Automatic fire detectors*.
2. *Automatic sprinkler system* waterflow devices.
3. *Manual fire alarm boxes*.
4. *Automatic fire-extinguishing systems*.

Note: *Exception is hereby deleted from the 2012 IBC.*

907.5.1 Presignal feature. A presignal feature shall not be installed unless *approved* by the fire code *official* and the fire *Department*. Where a presignal feature is provided, a signal shall be annunciated in order that occupant notification can be activated in the event of fire or other emergency.

SECTION 909 SMOKE CONTROL SYSTEMS

909.8 Exhaust method. When *approved* by the *building official*, mechanical smoke control for large enclosed volumes, such as in *atriums* or malls, shall be permitted to utilize the exhaust method. The design exhaust volumes shall be in accordance with this section.

909.8.1 Exhaust rate. The height of the lowest horizontal surface of the accumulating smoke layer shall be maintained at least 10 feet (3048 mm) above any walking surface which forms a portion of a required egress system within the smoke *zone*. The required exhaust rate for the *zone* shall be the largest of the calculated plume mass flow rates for the possible plume configurations. Provisions shall be made for natural or mechanical supply of air from outside or adjacent smoke *zones* to make up for the

air exhausted. Makeup airflow rates, when measured at the potential fire location, shall not exceed 200 feet per minute (60960 mm per minute) toward the fire. The temperature of the makeup air shall be such that it does not expose temperature-sensitive fire protection systems beyond their limits.

909.8.1.1 Exhaust rate alternative. Where the design exhaust rate of 909.8.1 would require excessive air changes per hour, the smoke control system shall be capable of exhausting not less than the following quantities of air unless the engineered design complies with 909.8.1 and allows for a lesser air change rate, but in no case shall the rate be less than two air changes per hour:

1. For atriums and malls having a volume of not more than 600,000 cubic feet (16800m³), including the volume of any levels not physically separated from the *atrium* or mall, not less than 40,000 cubic feet per minute (18.88 m³/s) nor less than six air changes per hour
2. For atriums and malls having a volume of more than 600,000 cubic feet (16800m³), including the volume of any levels not physically separated from the *atrium* or mall, not less than four air changes per hour

909.18.8.3 Reports. A complete report of testing shall be prepared by the special inspector or special inspection agency. The report shall include identification of all devices by manufacturer, nameplate data, design values, measured values and identification tag or *mark*. The report shall be reviewed by the responsible *licensed design professional* and, when satisfied that the design intent has been achieved, the responsible *licensed design professional* shall seal, sign and date the report.

909.21.4.4 Fan capacity. The supply fan shall either be adjustable with a capacity of at least 1,000 cfm (0.4719 m³/s) per door, or that specified by a *licensed design professional* to meet the requirements of a designed pressurization system.

SECTION 910 SMOKE AND HEAT REMOVAL

910.2 Where required. Approved smoke and heat vents shall be installed in the roofs of one-story buildings or portions thereof occupied for the uses set forth in 910.2.1 through 910.2.3.

910.2.1 High-piled combustible storage. Buildings and portions thereof containing high-piled combustible stock or rack storage in any occupancy group in accordance with 413 and the International Fire Code

910.2.2 Group H. Buildings and portions thereof used as a Group H occupancy in accordance with 415.6

910.2.3 Exit access travel distance increase. Building and portions thereof used as Group F-1 or S-1 occupancy where the maximum exit access travel distance is increased in accordance with Section 1016.2.2.

SECTION 912 FIRE DEPARTMENT CONNECTIONS

912.5 Backflow prevention. The potable water supply to an automatic sprinkler and standpipe system shall be protected against backflow by two (2), one-way check valves. Of the two required check valves, one may be an alarm check valve installed at the point where the automatic sprinkler system piping is connected to the domestic water piping.

SECTION 913 FIRE PUMPS

913.4 Valve supervision. Where provided, the fire pump suction, discharge and bypass valves, and isolation valves on the backflow prevention device or assembly shall be supervised open by one of the following methods:

1. Central-station, proprietary or remote-station signaling service;
2. Locking valves open; or
3. Sealing of valves and approved weekly recorded inspection where valves are located within fenced enclosures under the control of the owner.

SECTION 916 YARD HYDRANTS

916.1 Private hydrants. Fire hydrants installed on private property as part of a private fire protection system shall be located so as to meet the requirements of National Fire Protection Association (NFPA) Pamphlet #24 as incorporated by reference, except that hydrants shall be spaced so that the hose line does not exceed 500 feet (152m). Yard hydrant installation shall be coordinated with the local fire code officials who shall not make recommendations which exceed the requirements of NFPA Pamphlet #24. Yard hydrants shall not be installed on a water main less than 6 inches (152mm) in diameter.

916.2 Public hydrants. Public hydrants not covered by JFPA Pamphlet #24 shall conform to the standards of the administrative authority of the jurisdiction as provided by local government.

**CHAPTER 10
MEANS OF EGRESS**

**SECTION 1004
OCCUPANT LOAD**

1004.1.2 Areas without fixed seating. The number of occupants shall be computed at the rate of one occupant per unit of *area* as prescribed in Table 1004.1.2. For *areas* without *fixed seating*, the *occupant load* shall not be less than that number determined by dividing the *floor area* under consideration by the *occupant load factor* assigned to the

function of the space as set forth in Table 1004.1.2. Where an intended use is not *listed* in Table 1004.1.2, the *building official* shall establish a use based on a *listed* use that most nearly resembles the intended use.

Note: the exception listed in the 2012 IBC is hereby deleted.

**Table 1004.1.2
MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT**

OCCUPANCY	FLOOR AREA IN SQ. FT. PER OCCUPANT
Accessory storage area, mechanical equipment room	300 gross
Agricultural building	300 gross
Aircraft hangars	500 gross
Airport terminal	
Baggage claim	20 gross
Baggage handling	300 gross
Concourse	100 gross
Waiting areas	15 gross
Assembly	
Gaming floors (keno, slots, etc.)	11 gross
Exhibit Gallery and Museum	30 net
Assembly with fixed seats	See Section 1004.4
Assembly without fixed seats	
Concentrated (chairs only ---- not fixed)	7 net
Standing space	5 net
Unconcentrated (tables and chairs)	15 net
Bowling centers, allow 5 persons for each lane including 15 feet of runway, and for additional areas	7 net
Business areas	100 gross
Courtrooms ---- other than fixed seating areas	40 net
Daycare	35 net
Dormitories	50 gross
Educational	
Classroom area	20 net
Shops and other vocational room areas	50 net
Exercise rooms	50 gross
H-5 Fabrication and manufacturing areas	200 gross
Industrial areas ^a	100 gross
Institutional areas	
Inpatient treatment areas	240 gross
Outpatient areas	100 gross
Sleeping areas	120 gross
Kitchens, commercial	200 gross
Library	
Reading rooms	50 net
Stack area	100 gross
Mall buildings – covered and open	See Section 402.8.2

Locker rooms	50 gross
Mercantile	
Areas on other floors	60 gross
Basements and grade floor areas	30 gross
Storage, stock and shipping areas	300 gross
Parking garages	200 gross
Residential	200 gross
Skating rinks, swimming pools	
Rinks and pools	50 gross
Decks	15 gross
Stages and platforms	15 net
Warehouses	500 gross

For SI: 1 square foot = 0.0929 m².

a. *Floor area* in square feet per occupant.

b. Use a value of 200 gross for purposes of determining *jurisdiction* under Section 104.1 and 104.2 and *design professional* seal requirements in Section 122.1.

SECTION 1006 MEANS OF EGRESS ILLUMINATION

1006.1 Illumination required. The *means of egress*, including the *exit discharge*, shall be illuminated at all times the *building* space served by the *means of egress* is occupied. The required illumination at the *exit discharge* shall illuminate the path of egress travel for a distance not less than 30 feet measured from the center of the *exit discharge* door.

SECTION 1008 DOORS, GATES AND TURNSTILES

1008.1.6 Landings at doors. Landings shall have a width not less than the width of the *stairway* or the door, whichever is greater. Doors in the fully open position shall not reduce a required dimension by more than 7 inches (178mm). When a landing serves an *occupant load* of 50 or more, doors in any position shall not reduce the landing to less than one-half its required width. Landings shall have a length measured in the direction of travel of not less than 44 inches (1118mm).

Exception: Landing length in the direction of travel in Group R-3 as applicable in Section 101.2 and Group U and within individual units of Group R-2 as applicable in Section 101.2, need not exceed 36 inches (914 mm). The floor or landing shall not be greater than 1.5 inches (38 mm) lower than the top of the threshold.

1008.1.9.7 Delayed egress locks. *Approved, listed* delayed egress locks shall be permitted to be installed on doors serving any occupancy except in Group A, E and H occupancies in *buildings* that are equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 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*.

Exception: For judicial centers under the control of the Administrative Office of the *Courts*, an egress door along the path of travel that enters a judge's suite, chambers or *area* shall be allowed to be controlled by delayed egress locks subject to the provisions of this section.

1. The doors unlock upon actuation of the *automatic sprinkler system* or *automatic* fire detection system.
2. The doors unlock upon loss of power controlling the lock or lock mechanism.
3. The door locks shall have the capability of being unlocked by a signal from the *fire command center*.
4. The initiation of an irreversible process which will release the latch in not more than 15 seconds when a force of not more than 15 pounds (67N) is applied for 1 second to the release device. Initiation of the irreversible process shall active an audible signal in the vicinity of the door. Once the door lock has been released by the application of force to the releasing device, relocking shall be by manual means only.

Exception: Where *approved*, a delay of not more than 30 seconds is permitted.

5. A sign shall be provided on the door located above and within 12 inches (305mm) of the release device reading: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30] SECONDS.
6. Emergency lighting shall be provided at the door.

SECTION 1009 STAIRWAYS

1009.7.2 Riser height and tread depth. Stair riser heights shall be 7 inches maximum (178 mm) and 4 inches (102mm) minimum. The riser height shall be measured vertically between the *nosings* of adjacent treads. Rectangular tread depths shall be 11 inches (279mm) minimum measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's *nosing*. *Winder* treads shall have a minimum tread depth of 11 inches (279mm) between the vertical planes of the foremost projection of adjacent treads at the intersections with the walkline and a minimum tread depth of 10 inches (254mm) within the clear width of the stair.

Exceptions:

1. *Alternating tread devices* in accordance with Section 1009.13.
2. Ship ladders in accordance with 1009.14.
3. Spiral *stairways* in accordance with Section 1009.12.
4. *Aisle* stairs in assembly seating *areas* where the stair pitch or slope is set, for sightline reasons, by the slope of the adjacent seating *area* in accordance with Section 1028.11.2.
5. In Group R-3 occupancies; within *dwelling units* in Group R-2 occupancies; and in Group U occupancies that are accessory to a Group R-3 occupancy or accessory to individual *dwelling units* in Group R-2 occupancies; the maximum riser height shall be 8 ¼ inches (210 mm) the minimum tread depth shall be 9 inches (229 mm); and the minimum *winder* tread depth shall be 6 inches (152mm). A *nosing* not less than ¾ inch (19.1mm) but not more than 1 ¼ inches (32mm) shall be provided on *stairways* with *solid* risers where the tread depth is less than 11 inches (279mm).
6. Existing *stairways* not scheduled for replacement during renovation of an existing *building*.
7. In Group I-3 facilities, *stairways* providing access to *guard* towers, observation stations and control rooms, not more than 250 square feet (23 m²) in

area, shall be permitted to have a maximum riser of 8 inches (203mm) and a minimum tread depth of 9 inches (229mm).

8. *Stairways* providing access into or from *swimming pools*, spas or baptisteries with the tread surface entirely below water shall have treads and risers that conform to the following:
 - a) Step treads shall have a minimum unobstructed horizontal depth of 10 inches (254 mm) and a minimum unobstructed surface *area* of 240 square inches (0.15 m²)
 - b) Risers shall have a maximum uniform height of 12 inches (305 mm) as measured at the centerline of the tread. The height of the bottom riser shall not vary more than plus or minus 2 inches (51 mm) from the uniform riser height.

SECTION 1010 RAMPS

1010.3 Slope. *Ramps* used as part of a *means of egress* shall have a running slope not steeper than one unit vertical in 12 units horizontal (8.33-percent slope). The slope of other pedestrian *ramps* shall not be steeper than one unit vertical in eight units horizontal (12.5-percent slope).

SECTION 1012 HANDRAILS

1012.3 Handrail graspability. All required *handrails* shall comply with Section 1012.3.1 or shall provide equivalent graspability as detailed in Figure 1012.3.

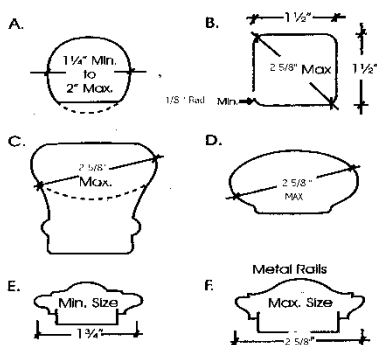
Exception: In Group R-3 occupancies; within *dwelling units* in Group R-2; and in Group U occupancies that are accessory to a Group R-3 occupancy or accessory to individual *dwelling units* in Group R-2 occupancies; *handrails* shall be Type I in accordance with Section 1012.3.1, Type II in accordance with Section 1012.3.2 or shall provide equivalent graspability.

1012.3.1 Type I. *Handrails* with a circular cross section shall have an outside diameter of at least 1 ¼ inches (32 mm) and not greater than 2 inches (51 mm). Where the *handrail* is not circular, it shall have a perimeter dimension of at least 4 inches (102 mm) and not greater than 6 ¼ inches (159 mm) with a maximum cross-section dimension of 2 ¼ inches (57 mm) and minimum cross-sectional dimension of 1 inch (25mm). Edges shall have a minimum radius of 0.01 inch (0.25 mm).

1012.3.2 Type II. *Handrails* with a perimeter greater than 6 ¼ inches (160mm) shall provide a graspable

finger recess *area* on both sides of the profile. The finger recess shall begin within a distance of $\frac{3}{4}$ inch (19mm) measured vertically from the tallest portion of the profile and achieve a depth of at least $\frac{5}{16}$ inch (8mm) with $\frac{7}{8}$ inch (22mm) below the widest portion of the profile. This required depth shall continue for at least $\frac{3}{8}$ inch (10mm) to a level that is not less than $1\frac{3}{4}$ inches (45mm) below the tallest portion of the profile. The minimum width of the *handrail* above the recess shall be $1\frac{1}{4}$ inches (32mm) to a maximum of $2\frac{3}{4}$ inches (70mm). Edges shall have a minimum radius of 0.01 inch (0.25mm).

**Figure 1012.3
Handrail Profiles**



1012.4 Continuity. *Handrail* gripping surfaces shall be continuous, without interruption by newel posts or other obstructions.

Exceptions:

1. *Handrails* within *dwelling units* are permitted to be interrupted by a newel post at a turn or landing
2. Within a *dwelling unit*, the use of a volute, turnout, starting easing or starting newel is allowed over the lowest tread.
3. *Handrail* brackets or balusters attached to the bottom surface of the *handrail* that do not project horizontally beyond the sides of the *handrail* within $1\frac{1}{2}$ inches (38mm) of the bottom of the *handrail* shall not be considered obstructions. For each $\frac{1}{2}$ inch (12.7mm) of *additional handrail* perimeter dimension above 4 inches (102mm), the vertical clearance dimension of $1\frac{1}{2}$ inches (38mm) shall be permitted to be reduced by $\frac{1}{8}$ inch (3mm).
4. Where *handrails* are provided along walking surfaces with slopes not steeper than 1:20, the bottoms of the *handrail*

gripping surfaces shall be permitted to be obstructed along their entire length where they are integral to crash rails or bumper *guards*.

5. Stair *handrails* within *dwelling units* shall be permitted to be discontinuous between the top and bottom of a *flight* of stairs where the ends of the discontinued rails are returned to a *wall* or post and the maximum distance between the discontinued rails is not greater than 4 inches (102 mm).

**SECTION 1013
GUARDS**

1013.3. Height. Required *guards* shall not be less than 42 inches (1067mm) high, measured vertically as follows:

1. From the adjacent walking surface;
2. On stairs, from the line connecting the leading edges of the tread *nosings*; and
3. On *ramps*, from the *ramp* surface at the *guard*.

Exceptions:

1. For occupancies in Group R-3 not more than three stories above *grade* in height and within individual *dwelling units* in occupancies in Group R-2 not more than three stories above *grade* in height with separate *means of egress*, required *guards* shall not be less than 36 inches (914mm) in height measured vertically from the adjacent walking surfaces or adjacent *fixed seating* whichever is at the higher elevation.
2. For occupancies in Group R-3, and within individual *dwelling units* in occupancies in Group R-2, *guards* on the open sides of stairs shall have a height not less than 34 inches (864mm) measured vertically from a line connecting the leading edges of the treads.
3. For occupancies in Group R-3, and within individual *dwelling units* in occupancies in Group R-2, where the top of the *guard* also serves as a *handrail* on the open sides of stairs, the top of the *guard* shall not be less than 34 inches (864mm) and not more than 38 inches (965mm) measured vertically from a line connecting the leading edges of the treads.
4. The *guard* height in assembly seating *areas* shall comply with Section 1028.14.
5. Along *alternating tread devices* and ship ladders, *guards* whose top rail also serves as a *handrail*, shall have height not less than 30 inches (864mm), measured vertically from the leading edge of the device tread *nosings*.

SECTION 1013.8 AND SUBSECTION 1013.8.1 ARE HEREBY DELETED IN THEIR ENTIRETY FROM THE 2012 IBC.

**SECTION 1016
EXIT ACCESS TRAVEL DISTANCE**

1016.2.2 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 (122 m) for occupancies in Group F-1 or S-1

**SECTION 1018
CORRIDORS**

**TABLE 1018.1
CORRIDOR FIRE-RESISTANCE RATING**

OCCUPANCY	OCCUPANT LOAD SERVED BY CORRIDOR	REQUIRED FIRE-RESISTANCE RATING (HOURS)	
		WITHOUT SPRINKLER SYSTEM	WITH SPRINKLER SYSTEM ^c
H-1, H-2, H-3	All	Not Permitted	1
H-4, H-5	Greater than 30	Not Permitted	1
A, B, E, F, M, S, U	Greater than 30	1	0
R	Greater than 10	1	0.5
I-2 ^a	All	Not Permitted	0
I-1, I-3	All	Not Permitted	1 ^b

- a. For requirements for occupancies in Group I-2, see Sections 407.2 and 407.3.
- b. For a reduction in the fire resistance rating for occupancies in Group I-3, see Section 408.8.
- c. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 where allowed.

**SECTION 1021
NUMBER OF EXITS AND EXIT CONFIGURATION**

**TABLE 1021.2
(1) STORIES WITH ONE EXIT OR ACCESS TO ONE EXIT FOR R-2 OCCUPANCIES.**

STORY	OCCUPANCY	MAXIMUM NUMBER OF DWELLING UNITS	MAXIMUM EXIT ACCESS TRAVEL DISTANCE
Basement, First, Second, or Third Story	R-2 ^{a, b, c, d}	4 Dwelling Units	50 Feet
Fourth Story and Above	NP	NA	NA

For SI: 1 foot = 304.8

NP – Not Permitted

NA – Not Applicable

- a. *Buildings* classified as Group R-2 equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2 and provided with *emergency escape and rescue openings* in accordance with Section 1029.
- b. This table is used for R-2 occupancies consisting of *dwelling units*. For R-2 occupancies with *sleeping units*, use Table 1021.2(2).
- c. The number of *dwelling units* that share a single *exit* may exceed 4 per floor where each 4 *dwelling units* sharing a single *exit* are separated from other groups of 4 *dwelling units* sharing a single *exit* by not less than a 2-hour *fire barrier wall* constructed in accordance with Section 707 of this code. A 2-hour *fire wall* is not required unless it is needed to reduce *building areas* to within the limits of Table 503 for the type of construction.
- d. If the building is protected throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2, the maximum exit travel distance in buildings classified as Group R-2 shall not be more than 125 feet in length.

SECTION 1022 INTERIOR EXIT STAIRWAYS AND RAMPS

1022.5 Penetrations. Penetrations into and openings through *interior exit stairways* and *ramps* are prohibited except for required *exit* doors, noncombustible refrigerant or hydronic piping necessary for heating or cooling the *exit* enclosure, equipment and ductwork necessary for independent *ventilation* or pressurization, sprinkler piping, standpipes, electrical raceway for fire department communication systems and electrical raceway serving the *interior exit stairway* and *ramp* and terminating at a steel box not exceeding 16 square inches (0.010 m²). Such penetrations shall be protected in accordance with Section 714. There shall be no penetrations or communicating openings, whether protected or not, between adjacent *interior exit stairways* and *ramps*.

1022.6 Ventilation. Equipment and ductwork for interior *exit* stair way and *ramp ventilation* as permitted by Section 1022.5 shall comply with one of the following items:

1. Such equipment and ductwork shall be located exterior to the *building* and shall be directly connected to the *interior exit stairway* and *ramp* by ductwork enclosed in construction as required for *shafts*.
2. Where such equipment and ductwork is located within the *interior exit stairway* and *ramp*, the intake air shall be taken directly from the outdoors and the exhaust air shall be discharged directly to the outdoors, or such air shall be conveyed through ducts enclosed in construction as required for *shafts*.
3. Where located within the *building*, such equipment and ductwork shall be separated from the remainder of the *building*, including other mechanical equipment, with construction as required for *shafts*.
4. Unitary HVAC equipment utilizing refrigerant or chilled and hot water for cooling and heating, such as fan coil units, shall be permitted to be installed within the *exit* enclosure. Noncombustible supply, return and condensate piping required for the operation of the fan coil unit, shall be allowed to penetrate the *exit* enclosure at one location each.

In each case, openings into the fire-resistance-rated construction shall be limited to those needed for maintenance and operation and shall be protected by opening protective in accordance with Section 716 for *shaft enclosures*.

The *interior exit stairway* and *ramp ventilation* systems shall be independent of other *building ventilation* systems.

SECTION 1027 EXIT DISCHARGE

1027.6 Exit discharge protection. A required *means of egress* shall not discharge directly into a vehicular path unless *guards* are provided to prevent vehicles from hitting the *exit* door in its outward opened position and to direct pedestrians in a path running parallel to the vehicular path. The *guards* shall prevent the *exit discharge* door from being blocked by movable objects such as dumpsters or parked vehicles.

SECTION 1028 ASSEMBLY

1028.6 Width of means of egress for assembly. The clear width of *aisles* and other *means of egress* that are integral with assembly seating shall comply with Section 1028.6.1 where smoke-protected seating is not provided and with Section 1028.6.2 or 1028.6.3 where smoke-protected seating is provided. The clear width shall be measured to *walls*, edges of seating and tread edges except for permitted projections. Stairs, *ramps*, passageways and doors that are not integral with assembly seating but serve as the *means of egress* from levels which contain assembly seating shall be constructed in accordance with Section 1008 Doors, 1009 Stairs, 1010 *Ramps*, and 1014 *Exit access* and *means of egress* sizing in accordance with Section 1005.

1028.6.1 Without smoke protection. The clear width of the *means of egress* shall provide sufficient capacity in accordance with all of the following, as applicable:

1. At least 0.3 inch (7.6 mm) of width for each occupant served shall be provided on stairs having riser heights of 7 inches (178 mm) or less and tread depths 11 inches (279 mm) or greater, measured horizontally between tread *nosings*.
2. At least 0.005 inch (0.127 mm) of *additional* stair width for each 0.10 inch (2.5 mm) of riser height above 7 inches (178 mm).
3. Where egress requires stair descent, at least 0.075 inch (1.9 mm) of *additional* width for each occupant shall be provided on those portions of stair width having no *handrail* within a horizontal distance of 30 inches (762 mm).
4. *Ramped means of egress*, where slopes are steeper than one unit vertical in 12 units horizontal (8.33 percent slope), shall have at least 0.22 inch (5.6 mm) of clear width for each occupant served. Level or *ramped means of egress*, where slopes are not steeper than one unit vertical in 12 units horizontal (8.33 percent

slope), shall have at least 0.20 inch (5.1 mm) of clear width for each occupant served.

1028.13.1 Discontinuous rails. Where there is seating on both sides of the *aisle*, the *handrails* shall be discontinuous with gaps or breaks at intervals not less than three rows and not exceeding five rows to facilitate access to seating and to permit crossing from one side of the *aisle* to the other. These gaps or breaks shall have a clear width of at least 22 inches (559 mm) and not greater than 36 inches (914 mm), measured horizontally. Where *handrails* are not a continuous single rail between cross-over gaps or breaks, multiple shorter *handrails* shall be allowed with the horizontal spacing between the rails measured parallel to the rail support, being less than or equal to 10 ½ inches. The *handrail* shall have rounded terminations or bends.

1028.13.1.1 Handrail extensions. Within *aisle* stairs, the horizontal extension is not required beyond the bottom or top riser, provided the *handrail* begins at the first riser and is continuous, except where gaps or breaks are permitted in Section 1028.13.1 to the top row of seats.

SECTION 1029 EMERGENCY ESCAPE AND RESCUE

1029.1 General. In *addition* to the *means of egress* required by this chapter, provisions shall be made for *emergency*

escape and rescue openings in Group R-2 occupancies in accordance with Tables 1021.2(1) and 1021.2(2) and Group R-3 occupancies. Sleeping rooms below the fourth *story above grade plane* shall have at least one exterior *emergency escape and rescue opening* in accordance with this section. Where *basements* contain one or more sleeping rooms, *emergency egress and rescue openings* shall be required in each sleeping room, but shall not be required in adjoining *areas* of the *basement*. Such openings shall open directly into a public way or to a *yard* or *court* that opens to a public way.

Exceptions:

1. *Basements* with a ceiling height of less than 80 inches (2032 mm) shall not be required to have *emergency escape* and rescue windows.
2. *Emergency escape* and *rescue openings* are not required from *basements* or sleeping rooms that have an *exit* door or *exit access* door that opens directly into a public way or to a *yard*, *court* or exterior *exit* balcony that opens to a public way.
3. *Basements* without *habitable spaces* and having no more than 200 square feet (18.6 m²) in *floor area* shall not be required to have *emergency escape* windows.
4. Replacement of *emergency escape* and rescue windows which meet or exceed the provisions of the applicable code at the time the *facility* was originally constructed.

CHAPTER 11 ACCESSIBILITY

SECTION 1103 SCOPING REQUIREMENTS

1103.2.12 Child day care facilities. *Areas* or portions of *buildings* used for rendering care of children in child day care facilities are not required to comply with the provisions found in this chapter applicable to children. Those *areas* of child day care facilities used by staff or parents of the children shall be made *accessible*. This would include, but not be limited to, *accessible* parking, *accessible route* to the *building/facility* entrance, *accessible route* within the *facility* to all occupiable rooms and spaces and toilet rooms.

1103.2.16 Church buildings. *Buildings* or portions thereof used as a *place of religious worship* and religious fellowship including family life centers are not required to comply with this chapter.

SECTION 1104 ACCESSIBLE ROUTE

1104.4 Multilevel buildings and facilities. At least one *accessible route* shall connect each *accessible* level, including *mezzanines*, in multilevel *buildings* and facilities.

Exceptions:

1. In *private buildings or facilities* required to be *accessible* that are less than three *stories* or that have less than 3000 square feet (279 m²) per *story*, an *accessible route* shall not be required to connect *stories* provided that the *building* or *facility* is not a shopping center, a shopping mall, the professional office of a health care provider, a terminal, depot or other station used for *specified* public transportation, an airport passenger terminal, or another type of *facility* as determined by the Attorney General.
2. Where a two *story public building or facility* has one *story* with an *occupant load* of five or fewer *persons* that does not contain *public use space*, that *story* shall not be required to be connected to the *story* above or below.
3. In detention and correctional *facilities*, an *accessible route* is not be required to levels above or below the *accessible* level where *cells* with mobility features required to comply with this code, all *common use areas* serving *cells* with mobility features required to comply with this code, and all *public use areas* are on an *accessible route*.
4. In residential *facilities*, an *accessible route* is not required to levels above or below the *accessible* level where *residential dwelling units* with mobility features required to comply with this code, all *common use areas* serving *residential dwelling units* with mobility

features required to comply with this code, and *public use areas* serving *residential dwelling units* are on an *accessible route*.

5. Within multi-*story transient lodging* an *accessible route* is not required to levels above or below the *accessible* level where guest rooms with mobility features required to comply with ICC/ANSI A117.1, Section 806.2, an *accessible route* shall not be required to connect *stories* provided that *spaces* complying with Section 806.2 are on an *accessible route* and sleeping accommodations for two *persons* minimum are provided on a *story* served by an *accessible route*.
6. In air traffic control towers, an *accessible route* is not required to serve the cab and the floor immediately below the cab.
7. Qualified *historic buildings* per Chapter 34 of this code.

1104.7 Public toilet facilities. An *accessible route* shall be provided to all public toilet facilities when provided or otherwise required by the Kentucky Plumbing Code. The *accessible route* shall be *accessible* to the general public and shall not be located in *areas* of the *building* that are restricted or noted as restricted to "Employees Only."

SECTION 1106 PARKING AND PASSENGER LOADING FACILITIES

1106.5 Van spaces. For every six or fraction of six *accessible* parking spaces, at least two shall be van *accessible* parking spaces in accordance with Table 1106.1.

Exception: In groups R-2 and R-3 occupancies, van *accessible* spaces located within private parking garages shall be permitted to have vehicular routes, entrances, parking spaces and access *aisles* with a minimum vertical clearance of 7 feet (2134 mm).

NOTE: Table 1106.1 is hereby deleted from the 2012 IBC and replaced with the following:

TABLE 1106.1

ACCESSIBLE PARKING SPACES		
TOTAL PARKING SPACES PROVIDED	REQUIRED MINIMUM NUMBER OF ACCESSIBLE SPACES	REQUIRED MINIMUM NUMBER OF VAN ACCESSIBLE SPACES ^a
1 to 25	2	2
25 to 50	2	2
51 to 75	3	2
76 to 100	4	2
101 to 150	5	2
151 to 200	6	2
201 to 300	7	4
301 to 400	8	4
401 to 500	9	4
501 to 1,000	2% of Total	2 van accessible spaces for every 6 or fraction of 6
1,001 and over	20, plus one for each 100, or fraction thereof over 1,000	2 van accessible spaces for every 6 or fraction of 6

a. Van accessible spaces shall not be in addition to the required minimum number of accessible spaces.

**SECTION 1109
OTHER FEATURES AND FACILITIES**

1109.2 Toilet and bathing facilities. Each toilet and bathing room shall be *accessible*. Where a floor level is not required to be connected by an *accessible route*, the only toilet rooms or bathing facilities provided within the *facility* shall not be located on an *inaccessible* floor. At least one of each type of fixture, element, control or dispenser in each *accessible* toilet room and bathing room shall be *accessible*.

Exceptions:

1. In toilet rooms or bathing facilities accessed only through a private office, not for common or public use, and intended for use by a single occupant, any of the following alternatives are allowed:
 - 1.1 Doors are permitted to swing into the clear floor space provided the door swing can be reversed to meet the requirements in ICC A117.1,
 - 1.2 The height requirements for the water closet in ICC A117.1 are not applicable,
 - 1.3 Grab bars are not required to be installed in a toilet room, provided that the reinforcement has been installed in the

walls and located so as to permit the installation of such grab bars,

- 1.4 The requirement for height, knee and toe clearance shall not apply to a lavatory.
2. This section is not applicable to toilet and bathing facilities that serve *dwelling units* or sleeping accommodations that are not required to be *accessible* by Section 1107.
3. Where multiple single-user toilet rooms or bathing facilities are clustered at a single location, at least 50% but not less than one room for each use at each cluster, shall be *accessible*.
4. Where no more than one urinal is provided in a toilet room or bathing *facility*, the urinal is not required to be *accessible*.
5. Toilet rooms that are part of a critical care or intensive care patient sleeping rooms are not required to be *accessible*.
6. Where toilet facilities are primarily for children's use, required *accessible* water closets, toilet compartments and lavatories shall be permitted to comply with the children's provisions of ICC A117.1.
7. Toilet room fixtures that are designated for use by children in day care occupancies.

1109.2.1 Family or assisted-use toilet and bathing rooms. In assembly and mercantile occupancies, an *accessible* family or assisted-use toilet room shall be provided where an aggregate of six or more male and female water closets is required. In *buildings* of mixed occupancy, only those water closets required for the assembly or mercantile occupancy shall be used to determine the family or assisted-use toilet room requirement. In recreational facilities where separate-sex bathing rooms are provided, an *accessible* family or assisted-use bathing room shall be provided. Fixtures located within family or assisted-use toilet and bathing rooms shall not be included in determining the total number of fixtures required by the plumbing code in an occupancy.

Exception: Where each separate-sex bathing room has only one shower or bathtub fixture, a family or assisted-use bathing room is not required.

1109.3 Sinks. Where sinks are provided, at least 5 percent but not less than one provided in *accessible* spaces shall comply with ICC A117.1.

Exceptions:

1. Mop and service sinks are not required to be *accessible*.
2. Sinks designated for use by children in day care occupancies.

**CHAPTER 12
INTERNAL ENVIRONMENT**

**SECTION 1203
VENTILATION**

1203.1 General. *Buildings* shall be provided with natural *ventilation* in accordance with Section 1203.4, or mechanical *ventilation* in accordance with the International Mechanical Code.

1203.6 Alternative mechanical system. Heating, ventilating and air conditioning (HVAC) systems in occupancies reviewed under NFPA 101 pursuant to Section 117.1 of this code shall be installed in accordance with NFPA 90A or NFPA 90B in lieu of the mechanical code incorporated by reference herein.

**SECTION 1206
YARDS OR COURTS**

1206.3.3 Court drainage. The bottom of every *court* shall be properly *graded* and drained to a public sewer or other *approved* disposal system complying with the Kentucky Plumbing Code.

**SECTION 1209
ACCESS TO UNOCCUPIED SPACES**

1209.2 Attic spaces. A clear opening not less than 20 inches by 30 inches (559 mm by 762 mm) shall be provided to any *attic area* having a clear height of over 30 inches (762 mm). A 30-inch (762 mm) minimum clear headroom shall be provided in the *attic* space at or directly above the access opening.

**SECTION 1210
TOILET AND BATHROOM REQUIREMENTS**

NOTE: *SECTION 1210.3 and subsections 1210.3.1 and 1210.3.2 are hereby DELETED in its entirety from the 2012 IBC.*

CHAPTER 14
EXTERIOR WALLS

SECTION 1410
WINDOW CLEANING SAFEGUARDS

1410.1 General. All *buildings* and *structures* over 50 feet (15240 mm) or four stories in height, in which the windows are cleaned from the outside, shall be provided with *anchors*, belt terminals or other *approved* safety devices for all window openings. Such devices shall be of an *approved* design, and shall be constructed of corrosion-resistant materials securely attached to the window frames or *anchored* in the enclosure *walls* of the *building*. Cast-iron or cast bronzed *anchors* shall be prohibited.

CHAPTER 15
ROOF ASSEMBLIES AND ROOFTOP STRUCTURES

SECTION 1503
WEATHER PROTECTION

1503.4 Roof drainage. Design and installation of roof drainage systems shall comply with the Kentucky Plumbing Code and the requirements of this section. The primary and secondary roof drainage systems shall comply with the requirements of Sections 1503.4.1 through 1503.4.2.

1503.4.1 Roof drains. Primary and secondary roof drains shall comply with the requirements of this section.

1503.4.1.1 Strainers. Roof drains shall have strainers extending not less than 4 inches (102 mm) above the surface of the roof immediately adjacent to the roof drain. Strainers shall have an available inlet *area*, above roof level, of not less than one and one-half times the *area* of the conductor or leader to which the drain is connected.

1503.4.1.2 Flat decks. Roof drain strainers for use on sun decks, parking decks and similar *areas* that are normally serviced and maintained shall comply with Section 1503.4.1 or shall be of the flat surface type, installed level with the deck, with an available inlet *area* not less than two times the *area* of the conductor or leader to which the drain is connected.

1503.4.1.3 Drain flashings. The connection between roofs and roof drains which pass through the roof and into the interior of the *building* shall be made water tight by the use of *approved* flashing material.

1503.4.2 Secondary (emergency) roof drains. Secondary roof drains shall comply with the requirements of this section in *addition* to the requirements of Section 1503.4.1.

1503.4.2.1 Secondary (emergency) roof drains. Secondary (emergency) roof drains or *scuppers* shall be provided where the roof perimeter construction extends above the roof in such a manner that water will be entrapped if the primary drains allow buildup for any reason.

1503.4.2.2 Separate systems required. Secondary roof drain systems shall have piping and point of discharge separate from the primary system. Discharge shall be above *grade* in a location which would normally be observed by the *building* occupants or maintenance personnel.

1503.4.2.3 Sizing of secondary drains. Secondary (emergency) roof drain systems shall be sized in accordance with the Kentucky Plumbing Code based on the rainfall rated for which the primary

system is designed. The secondary drain system shall be equal in size to the primary drain system. *Scuppers* shall be sized to prevent the depth of ponding water from exceeding that for which the roof was designed as determined by Section 1611.1. *Scuppers* shall not have an opening dimension of less than 4 inches (102 mm). The flow through the primary system shall not be considered when sizing the secondary roof drain system.

SECTION 1507
REQUIREMENTS FOR ROOF COVERINGS

1507.4.6 Snow and Ice Guards. Structures with roofs constructed of metal panels with slopes equal or greater than four units vertical in twelve units horizontal (33% or 4:12 slope) shall be provided with permanently attached guards sufficient to prevent large ice and snow slides.

CHAPTER 16 STRUCTURAL DESIGN

SECTION 1601 GENERAL

1601.2 Certificate of compliance. Design compliance with the provisions of this chapter and Chapter 18 shall be satisfied when certification of an architect or engineer licensed in Kentucky to that effect is placed on the drawings submitted to the code *official*, unless the code *official* shall notify the designer that a specific code violation exists.

SECTION 1602 DEFINITIONS AND NOTATIONS

1602.1 Definitions. The following terms are defined in Chapter 2:

RATIONAL ANALYSIS

SECTION 1603 CONSTRUCTION DOCUMENTS

1603.1.9 Systems and components requiring special interpretations for seismic resistance. *Construction documents* or specifications shall be prepared for those systems and components requiring *special inspection* for seismic resistance as *specified* in Section 1705.11 by the *licensed design professional* responsible for their design and shall be submitted for approval in accordance with Section 107.1. Reference to seismic standards in lieu of detailed drawings is acceptable.

SECTION 1604 GENERAL DESIGN REQUIREMENTS

1604.3 Serviceability. Structural systems and members thereof shall be designed to have adequate stiffness to limit deflections and lateral drift. See Section 12.12.1 of ASCE 7 for drift limits applicable to earthquake loading. The maximum *story* drift for wind loading shall be 0.008 times the *story* height, unless structural and architectural elements have been designed to account for larger displacements.

SECTION 1605 LOAD COMBINATIONS

1605.1.1 Stability. Regardless of which load combinations are used to design for *strength*, where overall *structure* stability (such as stability against overturning, sliding, or buoyancy) is being verified, use of the load combinations *specified* in Section 1605.2 or 1605.3 shall be permitted. Where the load combinations *specified* in Section 1605.2 are used, *strength* reduction factors applicable to soil resistance shall be provided by a *licensed design professional*. The stability of retaining

walls shall be verified in accordance with Section 1807.2.3.

SECTION 1607 LIVE LOADS

1607.10.1.2 Heavy live loads. *Live loads* that exceed 100 psf (4.79 kN/m²) shall not be reduced.

Exceptions:

1. The *live loads* for members supporting two or more floors are permitted to be reduced by a maximum of 20 percent, but the *live load* shall not be less than *L* as calculated in Section 1607.10.1.
2. For uses other than storage, where *approved*, *additional live load* reductions shall be permitted where shown by the *licensed design professional* that a rational approach has been used and that such reductions are warranted.

1607.10.2 Alternative uniform load reduction. As an alternative to Section 1607.10.1 and subject to the limitations of Table 1607.1, uniformly distributed *live loads* are permitted to be reduced in accordance with the following provisions. Such reductions shall apply to slab systems, beams, girders, columns, piers, *walls* and foundations.

1. A reduction shall not be permitted where the *live load* exceeds 100 psf (4.79 kN/m²) except that the design *live load* for members supporting two or more floors is permitted to be reduced by a maximum of 20 percent.

Exception: For uses other than storage, where *approved*, *additional live load* reductions shall be permitted where shown by the *licensed design professional* that a rational approach has been used and that such reductions are warranted.

2. A reduction shall not be permitted in passenger vehicle parking garages except that the *live loads* for members supporting two or more floors are permitted to be reduced by a maximum of 20 percent.
3. For *live loads* not exceeding 100 psf (4.79 kN/m²), the design *live load* for any structural member supporting 150 square feet (13.94 m²) or more is permitted to be reduced in accordance with Equation 16-24.

4. For one-way slabs, the *area*, *A*, for use in Equation 16-24 shall not exceed the product of the slab span and a width normal to the span of 0.5 times the slab span.

shall be determined in accordance with Table 1608.2. Ground snow loads for sites at elevations above the limits indicated by notes a and b of Table 1608.2 shall be *approved*. Ground snow load determination for such sites shall be based on an extreme value statistical analysis of data available in the vicinity of the site using a value with a 2-percent annual probability of being exceeded (50-year mean recurrence interval)

**SECTION 1608
SNOW LOADS**

1608.2 Ground snow loads. The ground snow loads to be used in determining the design snow loads for roofs

Note: TABLE 1608.2 Ground Snow Loads for Alaskan Locations for the 2012 IBC and FIGURE 1608.2 for the United States in the 2012 IBC are hereby DELETED in their entirety and replaced with the following:

**TABLE 1608.2
GROUND SNOW LOADS, p_g , FOR KENTUCKY COUNTIES**

COUNTY	GROUND SNOW LOAD (PSF)	COUNTY	GROUND SNOW LOAD (PSF)	COUNTY	GROUND SNOW LOAD (PSF)	COUNTY	GROUND SNOW LOAD (PSF)
Adair	15	Edmonson	15	Knox	15	Nicholas	15
Allen	15	Elliott	15	Larue	15	Ohio	15
Anderson	15	Estill	15	Laurel	15	Oldham	15
Ballard	15	Fayette	15	Lawrence	15	Owen	20
Barren	15	Fleming	15	Lee	15	Owsley	15
Bath	15	Floyd	20	Leslie	20	Pendleton	20
Bell	15 ^b	Franklin	15	Letcher	20 ^a	Perry	20
Boone	20	Fulton	15	Lewis	20	Pike	20 ^a
Bourbon	15	Gallatin	20	Lincoln	15	Powell	15
Boyd	20	Garrard	15	Livingston	15	Pulaski	15
Boyle	15	Grant	20	Logan	15	Robertson	15
Bracken	20	Graves	15	Lyon	15	Rockcastle	15
Breathitt	15	Grayson	15	Madison	15	Rowan	15
Breckinridge	15	Green	15	Magoffin	15	Russell	15
Bullitt	15	Greenup	20	Marion	15	Scott	15
Butler	15	Hancock	15	Marshall	15	Shelby	15
Caldwell	15	Hardin	15	Martin	20	Simpson	15
Calloway	15	Harlan	20 ^a	Mason	20	Spencer	15
Campbell	20	Harrison	15	McCracken	15	Taylor	15
Carlisle	15	Hart	15	McCreary	15	Todd	15
Carroll	20	Henderson	15	McLean	15	Trigg	15
Carter	20	Henry	20	Meade	15	Trimble	20
Casey	15	Hickman	15	Menifee	15	Union	15
Christian	15	Hopkins	15	Mercer	15	Warren	15
Clark	15	Jackson	15	Metcalfe	15	Washington	15
Clay	15	Jefferson	15	Monroe	15	Wayne	15
Clinton	15	Jessamine	15	Montgomery	15	Webster	15
Crittenden	15	Johnson	15	Morgan	15	Whitley	15
Cumberland	15	Kenton	20	Muhlenberg	15	Wolfe	15
Daviess	15	Knott	20	Nelson	15	Woodford	15

For SI: 1 pound per square foot (psf) = 0.0479 kN/m².

- a. Ground snow loads above 2500 feet (762m) in this county shall be based on site-specific case studies or by other approved means of approved rational analysis.
- b. Ground snow loads above 2000 feet (792.5m) in this county shall be based on site-specific case studies or by other approved means of approved rational analysis.

**SECTION 1609
WIND LOADS**

1609.1.1 Determination of wind loads. Wind loads on every *building* or *structure* shall be determined in accordance with Chapter 26 to 30 of ASCE 7 or provisions of the alternate all-heights method of Section 1609.6. The ultimate design wind speed, V_{ult} , and the exposure category for a *site* is permitted to be determined in accordance with Section 1609 or ASCE 7. Wind shall be assumed to come from any horizontal direction and wind pressures shall be assumed to act normal to the surface considered. Irregularly-shaped *structures* may be designed in accordance with Section 1609.6, subject to the limitations of that section, instead of using wind tunnel data. Alternatively, the *building official* may waive wind tunnel tests when design can be substantiated by dynamic or modal analysis.

Exceptions:

1. Subject to the limitations of Section 1609.1.1.1, the provisions of ICC 600 shall be permitted for applicable Group R-2 and R-3 *Buildings*.
2. Subject to the limitations of Section 1609.1.1.1, residential *structures* using the provisions of AF&PA WFCM.
3. Subject to the limitations of Section 1609.1.1.1, residential *structures* using the provisions of AISI S230.
4. Designs using NAAMM FP 1001.
5. Designs using TIA-222 for antenna-supporting *structures* and antennas, provided the horizontal extent of Topographic Category 2 escarpments in Section 2.6.6.2 of TIA-222 shall be 16 times the height of the escarpment.
6. Wind tunnel tests in accordance with Chapter 31 of ASCE 7.

The *wind speeds* in Table 1609.3 are ultimate design *wind speeds*, V_{ult} , and shall be converted in accordance with Section 1609.3.1 to nominal design *wind speeds*, V_{asd} , when the provisions of the standards referenced in Exceptions 1 through 5 are used.

1609.3 Basic wind speed. Basic *wind speed*. The ultimate design *wind speed*, V_{ult} , in mph, for the determination of the *wind loads* shall be determined from Table 1609.3

When the ultimate design *wind speed*, V_{ult} , is estimated from regional climatic data, the ultimate design *wind speed*, V_{ult} , shall be determined in accordance with Section 26.5.3 of ASCE 7.

Note: TABLE 1609.3.1 of the 2012 IBC is hereby DELETED in its entirety and replaced with the following:

**TABLE 1609.3
ULTIMATE DESIGN WIND SPEEDS, V_{ult} , FOR
KENTUCKY**

RISK CATEGORY	ULTIMATE DESIGN WIND SPEED mph (m/s)
I	105 (47)
II	115 (51)
III & IV	120 (54)

1609.3.1 Wind speed conversion. When required, the ultimate design *wind speeds* of Table 1609.3 shall be converted to nominal design *wind speeds*, V_{asd} , using Table 1609.3.1 or Equation 16-33.

(Equation 16-33)

$$V_{asd} = V_{ult} \sqrt{0.66}$$

where:

V_{asd} = nominal design *wind speed* applicable to methods *specified* in Exceptions 1 through 5 of Section 1609.1.1.

V_{ult} = ultimate design *wind speeds* determined from Table 1609.3.

Note: TABLE 1609.3.1 Wind speed Conversions is hereby DELETED in its entirety from the 2012 IBC and replaced with the following:

**TABLE 1609.3.1
WIND SPEED CONVERSIONS^{a,b,c}**

V_{ult}	105 (47)	115(51)	120(54)
V_{asd}	81(36)	89(39)	93(41)

- a. First value is in miles per hour (mph); second value is in meters per second (m/s).

b. V_{ult} = ultimate design wind speeds determined from Table 1609.3.

c. V_{asd} = nominal design wind speed applicable to methods specified in Exceptions 1 through 5 of Section 1609.1.1.

SECTION 1611 RAIN LOADS

1611.1 Design rain loads. Each portion of a roof shall be designed to sustain the load of rainwater that will accumulate on it if the primary drainage system for that portion is blocked plus the uniform load caused by water that rises above the inlet of the secondary drainage system at its design flow. The design rainfall shall be based on the 100-year hourly rainfall rate indicated in Table 1611.1 or on other rainfall rates determined by *approved* local weather data.

(Equation 16-36)

$$R = 5.2(d_s + d_h)$$

For SI: $R = 0.0098(d_s + d_h)$

where:

d_h = Additional depth of water on the undeflected roof above the inlet of secondary drainage system at its design flow (i.e. hydraulic head), in inches (mm).

d_s = Depth of water on the undeflected roof up to the inlet of secondary drainage.

R = Rain load on the undeflected roof, in psf (kN/m²). When the phrase “undeflected roof” is used deflections from *loads* (including *dead loads*) shall not be considered when determining the amount of rain on the roof.

If the secondary drainage systems contain drain lines, such lines and their point of discharge shall be separate from the primary drain lines.

1611.1.1 Flow rate of a single drainage system. Hydraulic head d_h shall be based on published drain manufacturer’s design data or other *approved* data as a function of flow rate through the cumulative effect of secondary drains for an impounded roof *area*. The flow rate for a single drainage system Q shall be:

(Equation 16-36a)

$$Q = 0.0104 A i$$

(in SI: $Q = 0.278 \times 10^{-6} A i$)

where:

A = portion of roof drainage *area* served by a single drain, ft² (m²).

I = Design rainfall intensity per Table 1611.1 or as otherwise allowed in this section, in inches (mm)

Note: FIGURE 1611.1 is hereby DELETED in its entirety from the 2012 IBC and replaced with the following:

TABLE 1611.1
100-YEAR, 1-HOUR DURATION RAINFALL INTENSITY, *i*

COUNTY	DESIGN RAINFALL INTENSITY (in)	COUNTY	DESIGN RAINFALL INTENSITY (in)	COUNTY	DESIGN RAINFALL INTENSITY (in)	COUNTY	DESIGN RAINFALL INTENSITY (in)
Adair	3.64	Edmonson	3.21	Knox	3.29	Nicholas	3.23
Allen	3.40	Elliott	3.21	Larue	3.10	Ohio	3.17
Anderson	3.15	Estill	3.20	Laurel	3.22	Oldham	3.18
Ballard	3.34	Fayette	3.14	Lawrence	3.07	Owen	3.23
Barren	3.38	Fleming	3.26	Lee	3.30	Owsley	3.30
Bath	3.26	Floyd	3.22	Leslie	3.27	Pendleton	3.21
Bell	3.38	Franklin	3.16	Letcher	3.19	Perry	3.26
Boone	3.03	Fulton	3.35	Lewis	3.18	Pike	3.11
Bourbon	3.21	Gallatin	3.11	Lincoln	3.14	Powell	3.22
Boyd	3.03	Garrard	3.10	Livingston	3.38	Pulaski	3.13
Boyle	3.14	Grant	3.22	Logan	3.30	Robertson	3.25
Bracken	3.23	Graves	3.37	Lyon	3.41	Rockcastle	3.18
Breathitt	3.33	Grayson	3.16	Madison	3.13	Rowan	3.24
Breckinridge	3.20	Green	3.23	Magoffin	3.29	Russell	3.31
Bullitt	3.16	Greenup	3.05	Marion	3.17	Scott	3.16
Butler	3.15	Hancock	3.19	Marshall	3.39	Shelby	3.18
Caldwell	3.39	Hardin	3.16	Martin	3.12	Simpson	3.30
Calloway	3.46	Harlan	3.30	Mason	3.27	Spencer	3.15
Campbell	3.08	Harrison	3.21	McCracken	3.35	Taylor	3.22
Carlisle	3.36	Hart	3.17	McCreary	3.33	Todd	3.32
Carroll	3.11	Henderson	3.30	McLean	3.17	Trigg	3.36
Carter	3.12	Henry	3.19	Meade	3.21	Trimble	3.17
Casey	3.19	Hickman	3.32	Menifee	3.33	Union	3.33
Christian	3.35	Hopkins	3.28	Mercer	3.14	Warren	3.29
Clark	3.18	Jackson	3.26	Metcalfe	3.32	Washington	3.16
Clay	3.25	Jefferson	3.12	Monroe	3.47	Wayne	3.34
Clinton	3.46	Jessamine	3.10	Montgomery	3.21	Webster	3.29
Crittenden	3.36	Johnson	3.21	Morgan	3.29	Whitley	3.32
Cumberland	3.41	Kenton	3.07	Muhlenberg	3.24	Wolfe	3.33
Daviess	3.19	Knott	3.23	Nelson	3.17	Woodford	3.15

For SI: 1 inch = 25.4 mm.

Source: NOAA Precipitation Frequency Data Server (Atlas 14, Volume 2, Version 3).

SECTION 1612 FLOOD LOADS

1612.3.1 Design flood elevations. Where *design flood elevations* are not included in the *flood hazard areas* established in Section 1612.3, or where *floodways* are not designated, the *code official* is authorized to require the applicant to:

1. Obtain and reasonably utilize any *design flood elevation* and *floodway* data available from a federal, state or other source; or
2. Determine the *design flood elevation* and/or *floodway* in accordance with accepted hydrologic and hydraulic engineering practices used to define special *flood hazard areas*. Determinations shall be undertaken by a *licensed design professional* who shall document that the technical methods used reflect currently accepted engineering practice.

1612.5 Flood hazard documentation. The following documentation shall be prepared and sealed by a *licensed design professional* and submitted to the *code official*:

1. For construction in *flood hazard areas* not subject to high-velocity wave action:
 - 1.1. The elevation of the *lowest floor*, including the *basement*, as required by the *lowest floor elevation* inspection in Section 110.3.3.
 - 1.2. For fully enclosed *areas* below the *design flood elevation* where provisions to allow for the *automatic* entry and *exit* of *floodwaters* do not meet the minimum requirements in Section 2.6.2.1 of ASCE 24, *construction documents* shall include a statement that the design will provide for equalization of hydrostatic *flood* forces in accordance with Section 2.6.2.2 of ASCE 24.
 - 1.3. For dry floodproofed nonresidential *buildings*, *construction documents* shall include a statement that the *dry* floodproofing is designed in accordance with ASCE 24.
2. For construction in *flood hazard areas* subject to high-velocity wave action:
 - 2.1 The elevation of the bottom of the lowest horizontal structural member as required by the *lowest floor* elevation inspection in Section 110.3.3.

SECTION 1613 EARTHQUAKE LOADS

1613.3.1 Mapped acceleration parameters. The parameters S_S and S_I shall be determined from the 0.2 and 1-second spectral response accelerations shown in Table 1613.3.1. Documented electronic data values for S_S (0.2-second spectral acceleration, 2% probability of

exceedance in 50 years) and S_I (1.0-second spectral acceleration, 2% probability of exceedance in 50 years) obtained through the 2008 US Geological Survey National Seismic Mapping Project database and adjusted for the 2012 International *Building Code*, or other means of *approved rational analysis* may be used instead of Table 1613.3.1. In no case will the calculated values be less than $S_{S,0}$ for S_S , or $S_{I,0}$ for S_I in that county.

Note: Figures 1613.3.1(1) through 1613.3.1(6) of the 2012 IBC are hereby DELETED in their entirety and replaced with the following:

TABLE 1613.3.1
SEISMIC ACCELERATION PARAMETERS FOR KENTUCKY^a

COUNTY	SPECTRAL RESPONSE ACCELERATION COEFFICIENTS				COUNTY	SPECTRAL RESPONSE ACCELERATION COEFFICIENTS			
	S_s^b	$S_{s,0}^c$	S_I^b	$S_{I,0}^c$		S_s^b	$S_{s,0}^c$	S_I^b	$S_{I,0}^c$
Adair	0.201	0.186	0.110	0.101	Franklin	0.179	0.172	0.094	0.090
Allen	0.272	0.228	0.135	0.120	Fulton	2.904	1.172	0.094	0.090
Anderson	0.182	0.178	0.098	0.093	Gallatin	0.161	0.153	0.087	0.083
Ballard	2.591	1.614	1.006	0.558	Garrard	0.188	0.181	0.095	0.093
Barren	0.249	0.214	0.127	0.115	Grant	0.173	0.156	0.087	0.082
Bath	0.205	0.195	0.088	0.085	Graves	1.552	0.918	0.536	0.311
Bell	0.325	0.258	0.110	0.100	Grayson	0.332	0.238	0.147	0.122
Boone	0.156	0.144	0.084	0.079	Green	0.209	0.193	0.113	0.106
Bourbon	0.204	0.187	0.090	0.087	Greenup	0.167	0.146	0.077	0.072
Boyd	0.162	0.151	0.076	0.073	Hancock	0.402	0.326	0.160	0.142
Boyle	0.182	0.180	0.099	0.095	Hardin	0.267	0.207	0.129	0.109
Bracken	0.181	0.160	0.084	0.079	Harlan	0.312	0.240	0.107	0.095
Breathitt	0.209	0.188	0.092	0.085	Harrison	0.192	0.173	0.089	0.084
Breckenridge	0.333	0.252	0.145	0.123	Hart	0.253	0.207	0.129	0.109
Bullitt	0.226	0.190	0.114	0.101	Henderson	0.676	0.486	0.230	0.182
Butler	0.378	0.282	0.163	0.136	Henry	0.178	0.165	0.096	0.090
Caldwell	0.789	0.614	0.273	0.228	Hickman	2.048	1.139	0.737	0.388
Calloway	0.985	0.712	0.334	0.254	Hopkins	0.679	0.484	0.241	0.190
Campbell	0.158	0.144	0.081	0.078	Jackson	0.210	0.192	0.095	0.091
Carlisle	2.288	1.325	0.834	0.456	Jefferson	0.227	0.186	0.114	0.099
Carroll	0.168	0.158	0.092	0.087	Jessamine	0.188	0.181	0.094	0.092
Carter	0.184	0.158	0.082	0.075	Johnson	0.181	0.170	0.083	0.079
Casey	0.189	0.181	0.102	0.097	Kenton	0.157	0.145	0.083	0.078
Christian	0.623	0.451	0.230	0.187	Knott	0.220	0.192	0.091	0.086
Clark	0.203	0.192	0.091	0.089	Knox	0.292	0.232	0.107	0.098
Clay	0.260	0.206	0.100	0.092	Larue	0.224	0.196	0.117	0.107
Clinton	0.206	0.196	0.108	0.104	Laurel	0.238	0.199	0.100	0.094
Crittenden	0.896	0.666	0.034	0.238	Lawrence	0.175	0.157	0.081	0.075
Cumberland	0.207	0.195	0.112	0.106	Lee	0.200	0.197	0.091	0.088
Daviess	0.522	0.365	0.194	0.153	Leslie	0.269	0.210	0.101	0.091
Edmonson	0.294	0.240	0.138	0.123	Letcher	0.252	0.211	0.097	0.089
Elliott	0.185	0.168	0.083	0.078	Lewis	0.189	0.152	0.082	0.073
Estill	0.200	0.194	0.092	0.089	Lincoln	0.188	0.181	0.098	0.094
Fayette	0.196	0.183	0.092	0.089	Livingston	1.190	0.845	0.408	0.290
Fleming	0.202	0.184	0.086	0.081	Logan	0.402	0.307	0.171	0.145
Floyd	0.210	0.177	0.088	0.081	Lyon	0.872	0.695	0.298	0.249

TABLE 1613.3.1 (Continued)
SEISMIC ACCELERATION PARAMETERS FOR KENTUCKY^a

Madison	0.198	0.185	0.094	0.091	Perry	0.245	0.200	0.096	0.088
Magoffin	0.193	0.178	0.086	0.082	Pike	0.225	0.180	0.096	0.088
Marion	0.197	0.181	0.107	0.099	Powell	0.203	0.199	0.090	0.080
Marshall	1.078	0.789	0.369	0.274	Pulaski	0.214	0.187	0.101	0.096
Martin	0.183	0.166	0.082	0.078	Robertson	0.192	0.179	0.085	0.082
Mason	0.192	0.168	0.084	0.079	Rockcastle	0.203	0.187	0.097	0.093
McCracken	2.124	1.068	0.759	0.366	Rowan	0.200	0.180	0.086	0.081
McCreary	0.269	0.209	0.107	0.100	Russell	0.196	0.187	0.106	0.101
McLean	0.550	0.418	0.203	0.169	Scott	0.190	0.173	0.091	0.087
Meade	0.292	0.232	0.132	0.116	Shelby	0.188	0.174	0.100	0.092
Menifee	0.204	0.194	0.088	0.085	Simpson	0.322	0.272	0.151	0.135
Mercer	0.182	0.179	0.098	0.094	Spencer	0.195	0.180	0.103	0.096
Metcalfe	0.215	0.200	0.115	0.109	Taylor	0.202	0.184	0.109	0.100
Monroe	0.230	0.204	0.121	0.110	Todd	0.459	0.380	0.187	0.168
Montgomery	0.205	0.202	0.090	0.088	Trigg	0.817	0.582	0.282	0.222
Morgan	0.196	0.175	0.086	0.081	Trimble	0.177	0.166	0.096	0.091
Muhlenberg	0.508	0.368	0.197	0.161	Union	0.768	0.634	0.261	0.223
Nelson	0.211	0.182	0.110	0.098	Warren	0.320	0.245	0.148	0.125
Nicholas	0.204	0.189	0.088	0.085	Washington	0.191	0.180	0.104	0.097
Ohio	0.437	0.317	0.177	0.142	Wayne	0.215	0.193	0.105	0.100
Oldham	0.194	0.175	0.102	0.094	Webster	0.708	0.515	0.248	0.194
Owen	0.175	0.158	0.090	0.085	Whitley	0.305	0.220	0.109	0.100
Owsley	0.216	0.198	0.093	0.099	Wolfe	0.199	0.189	0.089	0.086
Pendleton	0.177	0.156	0.086	0.080	Woodford	0.183	0.178	0.094	0.091

- The long-period transition period, T_L , used in ASCE 7 shall be 12 seconds for all Kentucky counties.
- Listed values of spectral response coefficients, S_s and S_l , shall be used in accordance to Section 1613.3.1 of this code.
- Listed values of minimum spectral response coefficients, $S_{s,0}$ and $S_{l,0}$, are the minimum bounds that would apply to an approved means of rational analysis in accordance to the limitations in Section 1613.3.1 of this code. In the absence of substantiating data derived by geodetic analysis, the maximum values of S_s and S_l shall be used for that county.

1613.3.3 Site coefficients and adjusted maximum considered earthquake spectral response acceleration parameters. The maximum considered earthquake spectral response acceleration for short periods, S_{MS} , and at 1-second period, S_{Ml} , adjusted for *site class* effects shall be determined by Equations 16-37 and 16-38, respectively:

(Equation 16-37)

$$S_{MS} = F_a S_s$$

(Equation 16-38)

$$S_{Ml} = F_v S_l$$

where:

F_a = *Site* coefficient defined in Table 1613.3.3(1).

F_v = *Site* coefficient defined in Table 1613.3.3(2).

S_s = The mapped spectral accelerations for short periods as determined in Section 1613.3.1.

S_l = The mapped spectral accelerations for a 1-second period as determined in Section 1613.3.1.

For regular *structures* as defined by ASCE 7, and irregular *structures* as defined by ASCE 7 and assigned to Risk Categories I and II; five stories or less above the base and with a period, T , of 0.5 seconds or less, S_s is not required to exceed 1.5.

1613.3.5 Determination of seismic design category.

Structures classified as *Risk category* III that are located where the mapped spectral response acceleration parameter at 1-second period, S_1 , is greater than or equal to 0.75 shall be assigned to *Seismic Design Category* E. *Structures* classified as *Risk category* IV that are located where the mapped spectral response acceleration parameter at 1-second period, S_1 , is greater than 0.75 shall be assigned to *Seismic Design Category* F. All *other structures* shall be assigned to a *seismic design category* based on their *risk category* and the design spectral response acceleration parameters, S_{DS} and S_{DI} , determined in accordance with Section 1613.3.4 or the *site-specific* procedures of ASCE 7. Each *building* and *structure* shall be assigned to the more severe *seismic design category* in accordance to Table 1613.3.5(1) or 1613.3.5(2), irrespective of the fundamental period of vibration of the *structure*.

1613.3.5.1 Alternative seismic design category determination. The *seismic design category* is permitted to be determined from Table 1613.3.5(1) alone when all of the following apply:

1. In each of the two *orthogonal* directions, the approximate fundamental period of the *structure*, T_a , in each of the two *orthogonal* directions determined in accordance with Section 12.8.2.1 of ASCE 7, is less than $0.8 T_S$ determined in accordance with Section 11.4.5 of ASCE 7.
2. In each of the two *orthogonal* directions, the fundamental period of the *structure* used to calculate the *story drift* is less than T_S .
3. Equation 12-8-2 of ASCE 7 is used to determine the seismic response coefficient, C_S .
4. The *diaphragms* are rigid as defined in Section 12.3.1 of ASCE 7 or, for *diaphragms* that are flexible, the distances between vertical elements of the seismic force-resisting system do not exceed 40 feet (12 192 mm).

SECTION 1614 ATMOSPHERIC ICE LOADS

1614.1 General. All *structures* shall be designed for atmospheric ice *loads* in accordance with Chapter 10 of ASCE 7. The values for nominal ice thickness, t , and concurrent *wind speed* V_c , shall be taken from Table 1614.1.

Note: The following table is to be added as a Kentucky amendment to the 2012 IBC and corresponds with Section 1614 as indicated above.

**TABLE 1614.1
ATMOSPHERIC ICE LOAD PARAMETERS FOR KENTUCKY**

COUNTY	NOMINAL ICE THICKNESS t (in) ^a	CONCURRENT WIND SPEED V _c (mph) ^b	COUNTY	NOMINAL ICE THICKNESS t (in) ^a	CONCURRENT WIND SPEED V _c (mph) ^b
Adair	0.75	30	Franklin	0.75	30
Allen	0.75	30	Fulton	1.00	30
Anderson	0.75	30	Gallatin	0.75	30
Ballard	1.00	30	Garrard	0.75	30
Barren	0.75	30	Grant	0.75	30
Bath	0.75	30	Graves	1.00	30
Bell	0.50 ^c	30	Grayson	0.75	30
Boone	0.75	40	Green	0.75	30
Bourbon	0.75	30	Greenup	0.75	30
Boyd	0.75	30	Hancock	0.75	30
Boyle	0.75	30	Hardin	0.75	30
Bracken	0.75	30	Harlan	0.50 ^c	30
Breathitt	0.75	30	Harrison	0.75	30
Breckenridge	0.75	30	Hart	0.75	30
Bullitt	0.75	30	Henderson	0.75	30
Butler	0.75	30	Henry	0.75	30
Caldwell	0.75	30	Hickman	1.00	30
Calloway	1.00	30	Hopkins	0.75	30
Campbell	0.75	40	Jackson	0.75	30
Carlisle	1.00	30	Jefferson	0.75	30
Carroll	0.75	30	Jessamine	0.75	30
Carter	0.75	30	Johnson	0.75	30
Casey	0.75	30	Kenton	0.75	40
Christian	0.75	30	Knott	0.50 ^c	30
Clark	0.75	30	Knox	0.75	30
Clay	0.75	30	Larue	0.75	30
Clinton	0.75	30	Laurel	0.75	30
Crittenden	1.00	30	Lawrence	0.75	30
Cumberland	0.75	30	Lee	0.75	30
Daviess	0.75	30	Leslie	0.50 ^c	30
Edmonson	0.75	30	Letcher	0.50 ^c	30
Elliott	0.75	30	Lewis	0.75	30
Estill	0.75	30	Lincoln	0.75	30
Fayette	0.75	30	Livingston	1.00	30
Fleming	0.75	30	Logan	0.75	30
Floyd	0.50 ^c	30	Lyon	1.00	30

TABLE 1614.1 (Continued)
ATMOSPHERIC ICE LOAD PARAMETERS FOR KENTUCKY

COUNTY	NOMINAL ICE THICKNESS t (in) ^a	CONCURRENT WIND SPEED V_c (mph) ^b	COUNTY	NOMINAL ICE THICKNESS t (in) ^a	CONCURRENT WIND SPEED V_c (mph) ^b
Madison	0.75	30	Perry	0.50 ^c	30
Magoffin	0.75	30	Pike	0.75 ^c	30
Marion	0.75	30	Powell	0.75	30
Marshall	1.00	30	Pulaski	0.75	30
Martin	0.50 ^c	30	Robertson	0.75	30
Mason	0.75	30	Rockcastle	0.75	30
McCracken	1.00	30	Rowan	0.75	30
McCreary	0.75	30	Russell	0.75	30
McLean	0.75	30	Scott	0.75	30
Meade	0.75	30	Shelby	0.75	30
Menifee	0.75	30	Simpson	0.75	30
Mercer	0.75	30	Spencer	0.75	30
Metcalfe	0.75	30	Taylor	0.75	30
Monroe	0.75	30	Todd	0.75	30
Montgomery	0.75	30	Trigg	0.75	30
Morgan	0.75	30	Trimble	0.75	30
Muhlenberg	0.75	30	Union	1.00	30
Nelson	0.75	30	Warren	0.75	30
Nicholas	0.75	30	Washington	0.75	30
Ohio	0.75	30	Wayne	0.75	30
Oldham	0.75	30	Webster	0.75	30
Owen	0.75	30	Whitley	0.75	30
Owsley	0.75	30	Wolfe	0.75	30
Pendleton	0.75	30	Woodford	0.75	30

For SI: 1-inch = 25.4 mm; 1 mile per hour (MPH) = 0.444 meters per second (m/s).

- a. Listed values of nominal ice thickness, t , shall be used in accordance to Section 1614 of this code. Ice loads shall be evaluated separately from snow load.
- b. Listed values of concurrent wind speed, V_c , shall be used in accordance to Section 1614 of this code. Concurrent wind speeds shall be used only in conjunction with ice loads. For other wind load conditions Section 1609.3 of this code shall apply.
- c. Nominal ice thicknesses in mountainous regions may vary significantly. Ice thicknesses shall be verified with local meteorological data for ice loads.

1614.1.1 Load combinations. Load combinations that include ice loads shall be in accordance to Sections 2.3.4 or 2.4.3 of ASCE 7. Section 1605.3.2 may not be used for combinations that include ice loads.

CHAPTER 17 SPECIAL INSPECTIONS AND TESTS

SECTION 1704 SPECIAL INSPECTIONS, CONTRACTOR RESPONSIBILITY AND STRUCTURAL OBSERVATIONS

1704.2 Special inspections. *Special inspections* are required for all *buildings* and *structures* that require the services of a licensed *design professional* per Section 107, Section 122 and Table 122.1. Where application is made for construction as described in this section, the *owner* or the *licensed design professional in responsible charge* acting as the *owner's* agent shall employ one or more *approved agencies* to perform inspections during construction on the types of work *listed* under Section 1705. These inspections are in *addition* to the inspections identified in Section 110.

Exceptions:

1. *Special inspections* are not required for work for which a *design professional* is not required by Section 107, Section 122 and Table 122.1.
2. *Special inspections* are not required for *building* components unless the design of the components involves the practice of professional engineering or architecture as defined by applicable state statutes and regulations governing the professional registration and certification of engineers or architects.
3. Unless otherwise required by the *building official*, *special inspections* are not required for occupancies in Group R-3 as applicable in Section 101.2 and occupancies in Group U that are accessory to a residential occupancy including, but not limited to, those *listed* in Section 312.1.
4. Unless otherwise required by the *building official*, *special inspections* are not required for *buildings* assigned to *Risk category I* per Table 1604.5.

1704.2.1 Special inspector qualifications. The *special inspector* shall provide written documentation to the *building official* demonstrating his or her competence and relevant experience or training. Experience or training shall be considered relevant when the documented experience or training is related in complexity to the same type of *special inspection* activities for projects of similar complexity and material qualities. These qualifications are in *addition* to qualifications *specified* in other sections of this code. The *licensed design professional in responsible charge* and engineers of record involved in the design of the project are permitted to act as the *approved agency* and

their personnel are permitted to act as the *special inspector* for the work designed by them, provided they qualify as *special inspectors*.

1704.2.3 Statement of special inspections. At the time of application for *permit*, the *permit* applicant shall submit a statement of *special inspections* prepared by the licensed *design professional* (s) in responsible charge in accordance with Section 107.1, as a condition for *permit* issuance. This statement shall be in accordance with Section 1704.3, and shall be included on the drawings submitted for *permit*.

1704.2.4 Report requirement. *Special inspectors* shall keep records of inspections. The *special inspector* shall furnish inspection reports to the *licensed design professional* in responsible charge. Reports shall indicate that work inspected was or was not completed in conformance to *approved construction documents*. Discrepancies shall be brought to the immediate attention of the contractor for correction. If they are not corrected, the discrepancies shall be brought to the attention of the *licensed design professional* in responsible charge prior to the completion of that phase of work. Discrepancies that are not corrected may be grounds for denial of the certificate of occupancy. A final report documenting required *special inspections* and correction of any discrepancies noted in the inspections shall be submitted by the *licensed design professional* in responsible charge, to the *building official*, prior to issuance of a certificate of occupancy by the *building official*. This final report shall not be considered a certification by the *licensed design professional* for any *special inspections*, tests or *structural observations* performed by others not under the direct supervision of the registered *design professional*.

1704.2.5.2 Fabricator approval. *Special inspections* required by Section 1705 are not required where the work is done on the premises of a fabricator registered and *approved* to perform such work without *special inspection*. Approval shall be based upon review of the fabricator's written procedural and quality control manuals and periodic auditing of fabrication practices by a *qualified certification authority*. At completion of fabrication, the *approved fabricator* shall submit a *certificate of compliance* to the *licensed design professional in responsible charge* stating that the work was performed in accordance with the *approved construction documents*.

1704.3 Statement of special inspections. Where *special inspection* or testing is required by Section 1704.2, the *licensed design professional in responsible charge* shall prepare a statement of *special inspections* in accordance with Section 1704.3.1 for submittal by the applicant in accordance with Section 1704.2.3. The statement of *special inspections* shall be included on the contract documents submitted for *permit*. Refer to the SEAoK *Special Inspections Guidelines* document, referenced in Chapter 35, for sample forms and statements.

1704.3.1 Content of statement of special inspections. The statement of *special inspections* shall identify the following:

1. The materials, systems, components and work required to have *special inspection* or testing by the *code official* or by the *licensed design professional* responsible for each portion of the work.
2. The type and extent of each *special inspection*.
3. The type and extent of each test.
4. *Additional* requirements for *special inspection* or testing for seismic or wind resistance as *specified* in Sections 1705.10, 1705.11 and 1705.12.
5. For each type of *special inspection*, identification as to whether it will be continuous *special inspection* or periodic *special inspection*.

1704.4 Contractor responsibility. Each contractor responsible for the construction of a main wind- or seismic force-resisting system, *designated seismic system* or a wind- or seismic-resisting component *listed* in the statement of *special inspections* shall submit a written statement of responsibility to the *licensed design professional in responsible charge* acting as the *owner's* agent, prior to commencement of work on the system or component. The contractor's statement of responsibility shall contain the following:

1. Acknowledgement of awareness of the special requirements contained in the statement of *special inspections*;
2. Acknowledgement that control will be exercised to obtain conformance with the *construction documents approved by the building official*;
3. Procedures for exercising control within the contractor's organization, the method and frequency of reporting and the distribution of the reports; and
4. Identification and qualifications of the *person(s)* exercising such control and their position(s) in the organization.

1704.5 Structural observations. Where required by the provisions of Section 1704.5.1 or 1704.5.2, the *owner* shall employ a *licensed design professional* to perform *structural observations* as defined in Section 1702. Prior to commencement of observations, the structural observer shall submit to the *licensed design professional in responsible charge* a written statement identifying the frequency and

extent of *structural observations*. At the conclusion of the work included in the *permit*, the structural observer shall submit to the *licensed design professional in responsible charge* a written statement that the *site visits* have been made and identify any reported deficiencies which, to the best of the structural observer's knowledge, have not been resolved.

1704.5.1 Structural observations for seismic resistance. *Structural observations* shall be provided for those *structures* assigned to Seismic Design Category D, E or F where one or more of the following conditions exist:

1. The *structure* is classified as *Risk category III* or *IV* in accordance with Table 1604.5.
2. The height of the *structure* is greater than 50 feet above the base.
3. The *structure* is classified as *Risk category I* or *II* in accordance with Table 1604.5, and is greater than two stories above *grade plane*.
4. When so designated by the *licensed design professional* responsible for the structural design.
5. When such observation is specifically required by the *building official* or *licensed design professional* responsible for the structural design.

1704.5.2 Structural observations for wind requirements. *Structural observations* shall be provided for those *structures sited* where V_{asd} as determined in accordance with Section 1609.3.1 exceeds 110 mph (49 m/sec), where one or more of the following conditions exist:

1. The *structure* is classified as *Risk category I, II* or *IV* in accordance with Table 1604.5.
2. The *building height* of the *structure* is greater than 75 feet (22 860 mm).
3. When so designated by the *licensed design professional* responsible for the structural design.
4. When such observation is specifically required by the *code official*.

SECTION 1705 REQUIRED VERIFICATION AND INSPECTION

1705.1.1 Special cases. *Special inspections* shall be required for proposed work that is, in the opinion of the *licensed design professional*, unusual in its nature, such as, but not limited to, the following examples:

1. Construction materials and systems that are alternatives to materials and systems prescribed by this code.
2. Unusual design applications of materials described in this code.
3. Materials and systems required to be installed in accordance with *additional* manufacturer's instructions that prescribe requirements not

contained in this code or in standards referenced by this code.

1705.1.2 Special inspections for seismic resistance shall be in accordance with Section 1705.11.

1705.2 Steel construction. The *special inspections* for steel elements of *buildings* and *structures* shall be as required in this section. Structural steel shall be as defined in AISC 360.

Exception: *Special inspection* of the steel fabrication process shall not be required where the fabricator does not perform any welding, thermal cutting or heating operation of any kind as part of the fabrication process. In such cases, the fabricator shall be required to submit a detailed procedure for material control that demonstrates the fabricator's ability to maintain suitable records and procedures such that, at any time during the fabrication process, the material specification, and *grade* for the main stress-carrying elements are capable of being determined. Mill test reports shall be identifiable to the main stress-carrying elements when required by the *approved construction documents*.

1705.3 Concrete construction. The *special inspections* and verifications for *concrete* construction shall be as required by this section and Table 1705.3 for all *buildings* and *structures* designated to Seismic Design Category C, D, E or F and for any *building* or *structure*, of any size, assigned to *Risk category* III or IV per Table 1604.5.

Exceptions. *Special inspections* shall not be required for the following when designated to Seismic Design Category A or B:

1. Isolated spread *concrete* footings of *buildings* three stories or less above *grade plane* that are fully supported on earth or rock.
2. Continuous *concrete* footings supporting *walls* of *buildings* three stories or less above *grade plane* that are fully supported on earth or rock where;
 - 2.1 The footings support *walls* of *light-frame construction*;
 - 2.2 The footings are designed in accordance with Table 1809.7; or
3. Nonstructural *concrete* slabs supported directly on the ground, including prestressed slabs on *grade*, where the effective prestress in the *concrete* is less than 150 psi.
4. *Concrete* foundation *walls* constructed in accordance with Table 1807.1.6.2.
5. *Concrete* patios, driveways and sidewalks, on *grade*.

1705.3.1 Materials. In the absence of sufficient data or documentation providing evidence of conformance to quality standards for materials in Chapter 3 of ACI 318, the *licensed design professional* shall require testing of materials in accordance with the appropriate standards and criteria for the material in Chapter 3 of ACI 318. Weldability of reinforcement, except that which

conforms to ASTM A 706, shall be determined in accordance with the requirements of Section 3.5.2 of ACI 318.

1705.5.1 High-load diaphragms and shear walls. High-load *diaphragms* and *shear walls* designed in accordance with Section 2306.2 and Section 2306.3 respectively shall be installed with *special inspections* as indicated in Section 1704.2. The *special inspector* shall inspect the wood structural *panel* sheathing to ascertain whether it is of the *grade* and thickness shown on the *approved building plans*. Additionally, the *special inspector* must verify the *nominal size* of framing members at adjoining *panel* edges, the nail or staple diameter and length, the number of fastener lines, the number, size and fastening of hold-downs and that the spacing between fasteners in each line and at edge margins agrees with the *approved building plans*.

1705.6 Soils. *Special inspections* for existing *site* soil conditions, fill placement and load-bearing requirements shall be as required by this section and Table 1705.6. The *approved* geotechnical report, and the *construction documents* prepared by the *licensed design professionals* shall be used to determine compliance. During fill placement, the *special inspector* shall determine that proper materials and procedures are used in accordance with the provisions of the *approved* geotechnical report.

Exception: Where Section 1803 does not require reporting of materials and procedures for fill placement, the *special inspector* shall verify that the in-place dry density of the compacted fill is not less than 90 percent of the maximum dry density at optimum moisture content determined in accordance with ASTM D 1557.

1705.7 Driven deep foundations. *Special inspections* shall be performed during installation and testing of driven *deep foundation* elements as required by Table 1705.7. The *approved* instruction documents, including the *approved* geotechnical report, and the *construction documents* prepared by the *licensed design professionals*, shall be used to determine compliance.

1705.8 Cast-in-place deep foundations. *Special inspections* shall be performed during installation and testing of cast-in-place *deep foundation* elements as required by Table 1705.8. The *approved* geotechnical report, and the *construction documents* prepared by the *licensed design professionals*, shall be used to determine compliance.

1705.9 Helical pile foundations. *Special inspections* shall be performed continuously during installation of *helical pile foundations*. The information recorded shall include installation equipment used, pile *dimensions*, tip elevations, final depth, final installation torque and other pertinent installation data as required by the *licensed design professional in responsible charge*. The *approved* geotechnical report and the *construction documents* prepared by the *licensed design professional* shall be used to determine compliance.

1705.10.1 Structural wood. Continuous *special*

inspection is required during field gluing operations of elements of the *main windforce-resisting system*. Periodic *special inspection* is required for nailing, bolting, *anchoring* and other fastening of components within the *main windforce-resisting system*, including wood *shear walls*, wood *diaphragms*, *drag struts*, braces and hold-downs.

Note: the Exception from this subsection is hereby deleted in its entirety from the 2012 IBC.

1705.10.2 Cold-formed steel light-frame construction. Periodic *special inspection* is required during welding operations of elements of the *main windforce-resisting system*. Periodic *special inspection* is required for screw attachment, bolting, *anchoring* and other fastening of components within the *main windforce-resisting system*, including *shear walls*, braces, *diaphragms*, *collectors (drag struts)* and hold-downs.

Note: the Exception from this subsection is hereby deleted in its entirety from the 2012 IBC.

1705.12.3 Seismic certification of nonstructural components. The *licensed design professional* shall specify on the *construction documents* the requirements for certification by analysis, testing or experience data for nonstructural components and *designated seismic systems* in accordance with Section 13.2 of ASCE 7, where such certification is required by Section 1705.12.

SECTION 1709 IN-SITU LOAD TESTS

1709.2 Test standards. Structural components and assemblies shall be tested in accordance with the appropriate referenced standards. In the absence of a standard that contains an applicable load test procedure, the test procedure shall be developed by a *licensed design professional* and *approved*. The test procedure shall simulate *loads* and conditions of application that the completed *structure* or portion thereof will be subjected to in normal use.

1709.3 In-situ load tests. In-situ load tests shall be conducted in accordance with Section 1709.3.1 or 1709.3.2 and shall be supervised by a *licensed design professional*. The test shall simulate the applicable loading conditions *specified* in Chapter 16 as necessary to address the concerns regarding structural stability of the *building, structure* or portion thereof.

1709.3.2 Load test procedure not specified. In the absence of applicable load test procedures contained within a standard referenced by this code or acceptance criteria for a specific material or method of construction, such *existing structure* shall be subjected to a test procedure developed by a *licensed design professional* that simulates applicable loading and deformation conditions. For components that are not a part of the seismic load-resisting system, the test load shall be equal to two times the unfactored design *loads*. The test load shall be left in place for a period of 24

hours. The *structure* shall be considered to have successfully met the test requirements where the following criteria are satisfied:

1. Under the design load, the deflection shall not exceed the limitations *specified* in Section 1604.3.
2. Within 24 hours after removal of the test load, the *structure* shall have recovered not less than 75 percent of the maximum deflection.
3. During and immediately after the test, the *structure* shall not show evidence of failure.

SECTION 1710 PRECONSTRUCTION LOAD TESTS

1710.3 Load test procedures not specified. Where load test procedures are not *specified* in the applicable referenced standards, the load-bearing and deformation capacity of structural components and assemblies shall be determined on the basis of a test procedure developed by a *licensed design professional* that simulates applicable loading and deformation conditions. For components and assemblies that are not a part of the seismic force-resisting system, the test shall be as *specified* in Section 1710.3.1. Load tests shall simulate the applicable loading conditions *specified* in Chapter 16.

CHAPTER 18 SOILS AND FOUNDATIONS

SECTION 1801 GENERAL

1801.1.1 Certificate of compliance. Design compliance with the provisions of this chapter and Chapter 16 shall be satisfied when certification of a Kentucky licensed architect or Kentucky licensed engineer is placed on the drawings submitted to the code *official*, unless the code *official* shall notify the designer that a specific code violation exists.

SECTION 1803 GEOTECHNICAL INVESTIGATIONS

1803.1 General. Geotechnical investigations shall be conducted in accordance with Section 1803.2 and reported in accordance with Section 1803.6. Where required by the *code official* or where geotechnical investigations involve in-situ testing, laboratory testing or engineering calculations, such investigations shall be conducted by a *licensed design professional*.

1803.3.1 Scope of investigation. The scope of the geotechnical investigation including the number and types of borings or soundings, the equipment used to drill or sample, the in-situ testing equipment and the laboratory testing program shall be determined by a *licensed design professional*.

1803.4 Qualified representative. The investigation procedure and apparatus shall be in accordance with generally accepted engineering practice. The *licensed design professional* shall have a fully qualified representative on *site* during all boring or sampling operations.

1803.5.10 Alternate setback and clearance. Where setbacks or clearances other than those required in Section 1808.7 are desired, the *code official* shall be permitted to require a geotechnical investigation by a *licensed design professional* to demonstrate that the intent of Section 1808.7 would be satisfied. Such an investigation shall include consideration of material, height of slope, slope gradient, load intensity and erosion characteristics of slope material.

SECTION 1804 EXCAVATION, GRADING AND FILL

1804.4 Grading and fill in flood hazard areas. In *flood hazard areas* established in Section 1612.3, grading and/or fill shall not be *approved*:

1. Unless such fill is placed, compacted and sloped to minimize shifting, slumping and erosion during the rise and fall of *flood* water and, as applicable, wave action.

2. In *floodways*, unless it has been demonstrated through hydrologic and hydraulic analyses performed by a *licensed design professional* in accordance with standard engineering practice that the proposed grading or fill, or both, will not result in any increase in *flood* levels during the occurrence of the *design flood*.
3. In *flood hazard areas* subject to high-velocity wave action, unless such fill is conducted and/or placed to avoid diversion of water and waves toward any *building* or *structure*.
4. Where *design flood elevations* are *specified* but *floodways* have not been designated, unless it has been demonstrated that the cumulative effect of the proposed *flood hazard area* encroachment, when combined with all other existing and anticipated *flood hazard area* encroachment, will not increase the *design flood elevation* more than 1 foot (305 mm) at any point.

SECTION 1807 FOUNDATION WALLS, RETAINING WALLS AND EMBEDDED POSTS AND POLES

1807.2.4 Guards. Where retaining *walls* with differences in *grade* level on each side of the *wall* in excess of 4 feet are located closer than 2 feet (610mm) to a walk, path, parking *lot* or driveway on the high side, such retaining *walls* shall be provided with *guards* that are constructed in accordance with Section 1013.

SECTION 1809 SHALLOW FOUNDATIONS

1809.4 Depth and width of footings. The minimum depth of footings below the undisturbed ground surface, except as excluded in Section 1809.5, shall be 24 inches (610 mm).

1809.5 Frost protection. Except where otherwise protected from frost, foundation *walls*, piers and other *permanent* supports of *building* and *structures* shall be protected by one or more of the following methods:

1. Extending below the frost line as identified in Table 1809.5.
2. Constructing in accordance with ASCE 32; or
3. Erecting on *solid* rock.

**TABLE 1809.5
MINIMUM FROST PROTECTION DEPTH FOR KENTUCKY**

COUNTY	FROST DEPTH d_f (in)	COUNTY	FROST DEPTH d_f (in)	COUNTY	FROST DEPTH d_f (in)
Bell	27	Johnson	30	Magoffin	30
Boone	30	Kenton	30	Martin	33
Breathitt	30	Knott	33	Owsley	27
Campbell	30	Knox	27	Perry	30
Clay	27	Lawrence	27	Pike	33
Floyd	33	Leslie	30	<i>All other KY counties</i>	<i>24</i>

For SI: 1 inch = 25.4 mm

**SECTION 1810
DEEP FOUNDATIONS**

1810.2.1 Lateral support. Any soil other than fluid soil shall be deemed to afford sufficient lateral support to prevent buckling of *deep foundation* elements and to permit the design of the elements in accordance with accepted engineering practice and the applicable provisions of this code.

Where *deep foundation* elements stand unbraced in air, water or fluid soils, it shall be permitted to consider them laterally supported at a point 5 feet (1524 mm) into stiff soil or 10 feet (3048 mm) into soft soil unless otherwise *approved* by the *code official* on the basis of a geotechnical investigation by a *licensed design professional*.

1810.2.4 Lateral loads. The moments, shears and lateral deflections used for design of *deep foundation* elements shall be established considering the nonlinear interaction of the *shaft* and soil, as determined by a *licensed design professional*. Where the ratio of the depth of embedment of the element to its least horizontal dimension is less than or equal to six, it shall be permitted to assume the element is rigid.

1810.3.2.8 Justification of higher allowable stresses. Use of allowable stresses greater than those *specified* in Section 1810.3.2.6 shall be permitted where supporting data justifying such higher stresses is filed with the *code official*. Such substantiating data shall include:

1. A geotechnical investigation in accordance with Section 1803; and
2. Load tests in accordance with Section 1810.3.3.1.2, regardless of the load supported by the element.

The design and installation of the *deep foundation*

elements shall be under the direct supervision of a *licensed design professional* knowledgeable in the field of soil mechanics and *deep foundations* who shall submit a report to the *code official* stating that the elements as installed satisfy the design criteria.

1810.3.3.1.2 Load tests. Where design compressive *loads* are greater than those determined using the allowable stresses *specified* in Section 1810.3.2.6, where the design load for any *deep foundation* element is in doubt, or where cast-in-place *deep foundation* elements have an enlarged base formed either by compacting *concrete* or by driving a precast base, control test elements shall be tested in accordance with ASTM D 1143 or ASTM D 4945. At least one element shall be load tested in each *area* of uniform subsoil conditions. Where required by the *code official*, additional elements shall be load tested where necessary to establish the safe design capacity. The resulting allowable *loads* shall not be more than one-half of the ultimate axial load capacity of the test element as assessed by one of the published methods *listed* in Section 1810.3.3.1.3 with consideration for the test type, duration and subsoil. The ultimate axial load capacity shall be determined by a *licensed design professional* with consideration given to tolerable total and differential settlements at design load in accordance with Section 1810.2.3. In subsequent installation of the balance of *deep foundation* elements, all elements shall be deemed to have a supporting capacity equal to that of the control element where such elements are of the same type, size and relative length as the test element; are installed using the same or comparable methods and equipment as the test element; are installed in similar subsoil conditions as the test element; and, for driven elements, where the rate of penetration (e.g., net displacement

per blow) of such elements is equal to or less than that of the test element driven with the same hammer through a comparable driving distance.

1810.3.5.2.2 Uncased. Cast-in-place *deep foundation* elements without a *permanent casing* shall have a diameter of not less than 12 inches (305 mm). The element length shall not exceed 30 times the average diameter.

Exception: The length of the element is permitted to exceed 30 times the diameter, provided the design and installation of the *deep foundations* are under the direct supervision of a *licensed design professional* knowledgeable in the field of soil mechanics and *deep foundations*. The *licensed design professional* shall submit a report to the *code official* stating that the elements were installed in compliance with the *approved construction documents*.

1810.4.11 Helical piles. *Helical piles* shall be installed to *specified* embedment depth and torsional resistance criteria as determined by a *licensed design professional*. The torque applied during installation shall not exceed the maximum allowable installation torque of the *helical pile*.

**CHAPTER 19
CONCRETE**

**SECTION 1910
SHOTCRETE**

1910.9.3 Natural curing. Natural curing shall not be used in lieu of that *specified* in this section unless the relative humidity remains at or above 85 percent, and is authorized by the *licensed design professional* and *approved* by the *building official*.

CHAPTER 21
MASONRY

SECTION 2113
MASONRY CHIMNEYS

2113.11.1.2 Gas appliances. Flue lining systems for gas appliances shall be in accordance with NFPA 54, National Fuel Gas Code.

2113.15 Flue area (appliance). Chimney flues shall not be smaller in area than the area of the connector from the appliance. Chimney flues connected to more than one appliance shall not be less than the area of the largest connector plus 50 percent of the areas of additional chimney connectors.

Exceptions:

1. Chimney flues serving oil-fired appliances sized in accordance with NFPA 31.
2. Chimney flues serving gas-fired appliances sized in accordance with NFPA 54, National Fuel Gas Code.

CHAPTER 22 STEEL

SECTION 2207 STEEL JOISTS

2207.3 Calculations. The *steel joist* and joist girder manufacturer shall design the *steel joists* and/or *steel joist* girders in accordance with the current SJI specifications and load tables to support the load requirements of Section 2207.2. The *licensed design professional* may require submission of the *steel joist* and joist girder calculations as prepared by a *licensed design professional* responsible for the product design. If requested by the *licensed design professional*, the *steel joist* manufacturer shall submit design calculations with a cover letter bearing the seal and signature of the joist manufacturer's *licensed design professional*. In addition to standard calculations under this seal and signature, submittal of the following shall be included:

1. Non-SJI standard bridging details (e.g. for cantilevered conditions, net uplift, etc.).
2. Connection details for:
 - 2.1. Non-SJI standard connections (e.g. flush-framed or framed connections);
 - 2.2. Field *splices*; and
 - 2.3. Joist headers.

2207.4 Steel joist drawings. *Steel joist* placement plans shall be provided to show the *steel joist* products as *specified* on the *construction documents* and are to be utilized for field installation in accordance with specific project requirements as stated in Section 2207.2. Steel placement plans shall include, at a minimum, the following:

1. Listing of all applicable *loads* as stated in Section 2207.2 and used in the design of the *steel joists* and joist girders as *specified* in the *construction documents*.
2. Profiles for nonstandard joist and joist girder configurations (standard joist and joist girder configurations are as indicated in the SJI catalog).
3. Connection requirements for:
 - 3.1. Joist supports;
 - 3.2. Joist girder supports;
 - 3.3. Field *splices*; and
 - 3.4. Bridging attachments.
4. Deflection criteria for live and total *loads* for non-SJI standard joists.
5. Size, location and connections for all bridging.
6. Joist headers. *Steel joist* placement plans do not require the seal and signature of the joist manufacturer's *licensed design professional*.

SECTION 2209 STEEL STORAGE RACKS

2209.1 Steel storage racks. The design, testing and utilization of industrial steel storage racks made of cold-formed or hot-rolled steel structural members, shall be in accordance with RMI/ANSI MH 16.1. Where required by ASCE 7, the seismic design of storage racks shall be in accordance with the provisions of Section 15.5.3 of ASCE 7, except that the mapped acceleration parameters, S_s and S_I , shall be determined in accordance with Section 1613.3.1. In locations where the steel storage racks are in public areas the provisions of FEMA 460, *Seismic Considerations for Steel Storage Racks Located in Areas Accessible to the Public*.

SECTION 2211 COLD-FRAMED STEEL LIGHT-FRAME CONSTRUCTION

2211.3.3 Trusses spanning 60 feet or greater. The owner shall contract with a *licensed design professional* for the design of the *temporary* installation restraint/bracing and the *permanent* individual truss member restraint/bracing for trusses with clear spans 60 feet (18 288 mm) or greater. *Special inspection* of trusses over 60 feet (18 288 mm) in length shall conform to Section 1705.

CHAPTER 23 WOOD

SECTION 2303 MINIMUM STANDARDS AND QUALITY

2303.4.1.2 Permanent individual truss member restraint. Where *permanent* restraint of truss members is required on the truss design drawings, it shall be accomplished by one of the following methods:

1. *Permanent* individual truss member restraint/bracing shall be installed using standard industry lateral restraint/bracing details in accordance with generally accepted engineering practice. Locations for lateral restraint shall be identified on the truss design drawing.
2. The trusses shall be designed so that the buckling of any individual truss member is resisted internally by the individual truss through suitable means (i.e., buckling reinforcement by T-reinforcement or L-reinforcement, proprietary reinforcement, etc.). The buckling reinforcement of individual members of the trusses shall be installed as shown on the truss design drawing or on supplemental truss member buckling reinforcement details provided by the truss designer.
3. A project-specific *permanent* individual truss member restraint/bracing design shall be permitted to be *specified* by any *licensed design professional*.

2303.4.1.3 Trusses spanning 60 feet or greater. The *owner* shall contract with any qualified *licensed design professional* for the design of the *temporary* installation restraint/bracing and the *permanent* individual truss member restraint/bracing for all trusses with clear spans 60 feet (18 288 mm) or greater.

2303.4.1.4.1 Truss design drawings. Where required by the *licensed design professional*, the *code official* or the statutes of the *jurisdiction* in which the project is to be constructed, each individual truss design drawing shall bear the seal and signature of the truss designer.

Exceptions:

1. Where a cover sheet and truss index sheet are combined into a single sheet and attached to the set of truss design drawings, the single cover/truss index sheet is the only document required to be signed and sealed by the truss designer.
2. When a cover sheet and a truss index sheet are separately provided and attached to the set of truss design drawings, the cover sheet and the truss index sheet are the only documents required to be signed and sealed by the truss designer.

2303.4.4 Anchorage. The design for the transfer of *loads* and *anchorage* of each truss to the supporting *structure* is the responsibility of the *licensed design professional*.

2303.4.5 Alterations to trusses. Truss members and components shall not be cut, notched, drilled, *spliced* or otherwise altered in any way without written concurrence and approval of a *licensed design professional*. *Alterations* resulting in the *addition* of *loads* to any member (e.g., HVAC equipment, piping, additional roofing or insulation, etc.) shall not be permitted without verification from the *licensed design professional* that the truss is capable of supporting such additional loading.

SECTION 2308 CONVENTIONAL LIGHT-FRAME CONSTRUCTION

2308.8.2.1 Engineered wood products. Cuts, notches and holes bored in trusses, structural composite lumber, structural glue-laminated members or I-joists are not permitted except where permitted by the manufacturer's recommendations or where the effects of such *alterations* are specifically considered in the design of the member by a *licensed design professional*.

2308.10.4.1 Ceiling joists and rafter connections. Ceiling joists and rafters shall be nailed to each other and the assembly shall be nailed to the top *wall* plate in accordance with Tables 2304.9.1 and 2308.10.1 and the rafter shall be fastened to the top plate by the use of *approved* connectors having a resistance to uplift of not less than 175 pounds (79.45 kg) and shall be installed in accordance with the manufacturer's specifications. Ceiling joists

shall be continuous or securely joined where they meet over interior partitions and fastened to adjacent rafters in accordance with Tables 2308.10.4.1 and 2304.9.1 to provide a continuous rafter tie across the *building* where such joists are parallel to the rafters. Ceiling joists shall have a bearing surface of not less than 1 ½ inches (38 mm) on the top plate of each end.

Where ceiling joists are not parallel to rafters, an equivalent rafter tie shall be installed in a manner to provide a continuous tie across the *building*, at a spacing of not more than 4 feet (1219mm) o.c. The connections shall be in accordance with Tables 2308.10.4.1 and 2304.9.1 or connections of equivalent capacities shall be provided. Where ceiling joists or rafter ties are not provided at the top of the rafter support *walls*, the ridge formed by these rafters shall also be supported by a girder conforming to Section 2308.4.

Rafter ties shall be spaced not more than 4 feet (1219 mm) o.c. Rafter tie connections shall be based on the equivalent rafter spacing in Table 2308.10.4.1. Where rafter ties are spaced at 32 inches (813 mm) o.c., the number of 16d common nails shall be two times the number *specified* for rafters spaced 24 inches (610 mm) o.c. with a minimum of 6-16d common nails where no snow *loads* are indicated. Rafter/ceiling joist connections and rafter/tie connections shall be of sufficient size and number to prevent splitting from nailing.

2308.10.7 Engineered wood products. Prefabricated wood I-joists, structural glued-laminated timber and structural composite lumber shall not be notched or drilled except where permitted by the manufacturer's recommendations or where the effects of such *alterations* are specifically considered in the design of the member by a *licensed design professional*.

**CHAPTER 24
GLASS AND GLAZING**

**SECTION 2403
GENERAL REQUIREMENTS FOR GLASS**

2403.2 Glass supports. Where one or more sides of any pane of glass are not firmly supported, or are subjected to unusual load conditions, detailed *construction documents*, detailed shop drawings and analysis or test data assuring safe performance for the specific installation shall be prepared by a *licensed design professional*.

**SECTION 2404
WIND, SNOW, SEISMIC AND DEAD LOADS ON
GLASS**

2404.4 Other designs. For designs outside the scope of this section, an analysis or test data for the specific installation shall be prepared by a *licensed design professional*.

CHAPTER 27 ELECTRICAL

SECTION 2701 GENERAL

2701.2 Electrical inspections. Inspections conducted to determine compliance with National Electrical Code (NFPA 70), shall be conducted by certified inspectors in accordance with requirements of KRS Chapter 227 and 815 KAR 35:015.

2701.3 Electrical machinery. Electrical machinery shall comply with NFPA 79.

SECTION 2702 EMERGENCY AND STANDBY POWER SYSTEMS

2702.1 Installation. Emergency and standby power systems shall be installed in accordance with the National Electrical Code (NFPA 70), NFPA 110 and 111.

2702.3 Maintenance. Emergency and standby power systems shall be maintained and tested in accordance with 815 KAR 10:060, Kentucky Standards of Safety.

SECTION 2703 PERMIT AND CERTIFICATE OF INSPECTION

2703.1 General. Electrical wiring or equipment shall not be installed within or on any *building, structure* or premises, nor shall any *alteration* be made in any such existing installation, without first securing approval and a *permit* from the code *official* except as provided for in Section 2703.2. It shall be unlawful to use or allow the use of, or to supply current for, an electrical system in a *building* or *structure*, unless the required certificate of inspection and *permit* have been issued by the code *official*.

2703.2 Exemptions. A *permit* shall not be required for the execution and use of the classes of work *specified* in Sections 2703.2.1 through 2703.2.4.

2703.2.1 Repairs and maintenance. A *permit* shall not be required for minor *repair* work, including the replacement of lamps or the connection of *approved* portable electrical equipment to *approved permanently* installed receptacles.

2703.2.2 Public service agencies. A *permit* shall not be required for the installation, *alteration* or *repair* of electrical equipment for the operation of communications and signals or the transmission of intelligence by wire by public service agencies, except as provided in Chapter 9 for *fire alarm systems*.

2703.2.3 Power companies. A *permit* shall not be required for the installation, *alteration* or *repair* of electrical equipment of a power or public service company for its use in the generation, transmission, distribution or metering of electricity.

2703.2.4 Temporary testing systems. A *permit* shall not be required for the installation of any *temporary* system required for the testing or servicing of electrical equipment or apparatus.

SECTION 2704 INSPECTIONS AND TESTS

2704.1 During installation. During the installation of electric systems and equipment, the certified electrical inspector shall make inspections to ensure compliance with the provisions of this chapter, except as provided for in Section 2703.

2704.2 Concealing work. Work in connection with an electric system shall not be covered or concealed until such work has been inspected and permission to conceal such work has been *approved*.

2704.3 Final inspection and test. On completion of the work, the certified electrical inspector shall inspect the work and cause tests to be made of the operation of the entire system to ensure compliance with all requirements.

CHAPTER 28
MECHANICAL SYSTEMS

SECTION 2801
GENERAL

2801.1 Scope. Mechanical appliances, equipment and systems shall be constructed, installed and maintained in accordance with the *International Mechanical Code* and the NFPA 54 National Fuel Gas Code. *Masonry chimneys, fireplaces* and barbecues shall comply with the *International Mechanical Code* and Chapter 21 of this code.

Exception: Mechanical ventilating systems may be designed in accordance with the provisions of ASHRAE 62 as incorporated by reference herein.

2801.2 Boilers. All boilers, pressure vessels and associated pressure piping shall meet the standards for construction, installation, and inspection in accordance with the requirements of KRS Chapter 236 and 815 KAR Chapter 15.

2801.3 Unfired pressure vessels. All unfired pressure vessels shall meet the standards set forth in Section VIII of the ASME Boiler and Pressure Vessel Code as incorporated by reference herein.

2801.4 Design of mechanical systems. The code *official* shall allow the use of the actual *occupant load* in lieu of Table 1004.1.2 in the design of mechanical ventilating systems. This applies to the mechanical code and ASHRAE 62 Standard as incorporated by reference herein.

**CHAPTER 29
PLUMBING SYSTEMS**

NOTE: CHAPTER 29 “PLUMBING SYSTEMS” AS IT APPEARS IN THE 2012 IBC IS HEREBY DELETED IN ITS ENTIRETY AND REPLACED WITH THE FOLLOWING:

**SECTION 2901
GENERAL**

2901.1 Kentucky State Plumbing Code. The provisions of this chapter and the Kentucky State Plumbing Code shall govern the erection, installation, *alteration*, *repairs*, relocation, replacement, *addition* to, use or maintenance of plumbing equipment and systems. Plumbing systems and equipment shall be constructed, installed and maintained in accordance with the Kentucky State Plumbing code, including all fees and licensing requirements. Private Sewage disposal systems shall conform to 902 KAR 10:081 and 10:085.

**SECTION 2902
MINIMUM PLUMBING FACILITIES**

2902.1 Minimum fixture requirements. In a *building* accommodating males and females, it shall be presumed that the occupants will be equally divided between males and females, unless otherwise specified. Each *building* shall comply with minimum fixture requirements established in 815 KAR 20:191.

CHAPTER 30 ELEVATORS AND CONVEYING SYSTEMS

SECTION 3001 GENERAL

3001.2 Referenced standards. Except as otherwise provided for in this code, the design, construction, installation, *alteration*, *repair* and maintenance of elevators and conveying systems and their components shall conform to ASME A17.1/CSA B44 with the exception of rule 8.11.1.1.2; ASME A17.2; ASME A17.3; ASME A17.4; ASME A17.5; ASME A17.6; ASME A18.1 with the exception of rules 10.1.2.1 and 10.1.2.2; ASME B20.1, and ASCE 24 for construction in *flood hazard areas* established in Section 1612.3.

3001.2.1 Personnel and material hoists shall be designed utilizing an *approved* method that accounts for the conditions imposed during the intended operation of the hoist device. The design shall include, but is not limited to, anticipated *loads*, structural stability, impact, vibration, stresses and seismic restraint. The design shall account for the construction, installation, operation and inspection of the hoist tower, car, machinery and control equipment, guide members and hoisting mechanism. Additionally, the design of personnel hoists shall include provisions for field testing and maintenance that will demonstrate that the hoist device functions in accordance with the design. Field tests shall be conducted upon the completion of an installation or following a major *alteration* of a personnel hoist.

SECTION 3009 POWER ELEVATOR OPERATION

3009.1 Designated operators. Every power elevator, except *automatic* and continuous-pressure operation types and sidewalk elevators, shall be in the charge of a competent designated operator.

3009.2 Emergency operation: All elevators shall conform to the requirements of ASME A 17.1 and ASME A17.3 *listed* in Chapter 35.

3009.2.1 Smoke detectors: *Smoke detectors* shall be installed in accordance with NFPA 72 and ASME A17.1 and ASME A17.3 *listed* in Chapter 35.

3009.2.2 Activation: The emergency operation shall be activated by *smoke detectors* installed in accordance with ASME A17.1, NFPA 72, and ASME A17.3 *listed* in Chapter 35.

3009.2.3 Automatic sprinklers: Where an *automatic* sprinkler is installed in elevator hoistways or elevator

equipment rooms, means shall be provided to automatically disconnect the main line power supply to the affected elevator upon or prior to the application of water from sprinklers located in the machine room or elevator hoistway. This means shall be independent of the elevator control and shall not be self-resetting. The activation of sprinklers outside of the hoistway or machine room shall not disconnect the main line power supply. *Smoke detectors* shall not be used to activate sprinklers in these spaces or to disconnect the main line power supply.

Exceptions:

1. NFPA 13, Chapter 8, Section 8.14.5.5: The sprinkler required at the top of the elevator hoistway by 8.14.5.4 shall not be required where the hoistway for passenger elevators is noncombustible and the car enclosure materials meet the requirements of ASME A17.1, Safety Code for Elevators and Escalators.
2. KBC, Section 903.3.1.1.1: In elevator machine rooms fully enclosed with 2 hour fire-resistance-rated construction, where signs are posted on the entry door, and within the room to prohibit storage of any kind, the sprinkler shall not be required.

3009.3 Accessible elevators: See Chapter 11 for *buildings* and facilities required to be *accessible* to *persons* with physical disabilities.

SECTION 3010 STAIRWAY CHAIR-LIFTS AND WHEELCHAIR LIFTS

3010.1 General: Inclined *stairway* chairlifts and inclined and vertical wheelchair lifts shall conform to the requirements of ASME A18.1 incorporated by reference herein.

SECTION 3011 MAINTENANCE AND ACCIDENTS

3011.2 Contractor responsibility: The elevator contractor installing any device covered by this chapter shall make all acceptance tests. The elevator contractor shall be responsible for the care and safe operation of such equipment during its construction and until temporarily or finally accepted by the *building owner* or the *owner's* legal agent.

3011.3 Maintenance items: All operating and electrical parts and accessory equipment or devices subject to this chapter shall be maintained in a safe operating condition.

The maintenance of all equipment covered by this chapter shall conform to ASME A17.1, ASME A18.1, ASME B20, or ANSI AIO.5 listed in Chapter 35.

3011.4 Incidents reported and recorded: The owner of a building or designee shall immediately notify the department of any injury or death involving the use, attempted use, or maintenance of an elevator or fixed guideway system in accordance with the requirements of 815 KAR 4:027.

3011.5 Removal of damaged parts: Pursuant to 815 KAR 4:027 it shall be unlawful to remove any part of the damaged construction, malfunctioning, or operating mechanism of elevators, or other equipment subject to the provisions of this chapter, until permission to do so has been granted by the state elevator inspector.

SECTION 3012

CONSTRUCTION DOCUMENTS AND PERMITS

3012.1 Application: The application for a *permit* shall be accompanied by *construction documents* in sufficient detail indicating the location of the machinery room, equipment to be installed, relocated or altered, and all supporting structural members, including foundations. The *construction documents* shall indicate all materials to be used and all *loads* to be supported or conveyed.

3012.2 Permits: Equipment or devices subject to the provisions of this code shall not be constructed, installed, relocated or altered unless a *permit* has been received from the state elevator inspector before the work is commenced. A copy of such *permit* shall be kept at the construction *site* at all times while the work is in progress.

SECTION 3013

CERTIFICATE OF COMPLIANCE

3013.1 General: No equipment subject to this chapter shall be operated until inspected, tested and issued a final or limited *certificate of compliance* by the state elevator inspector. Any use prior to satisfaction of these requirements shall be unlawful and subject the violator to statutorily authorized penalties.

3013.2 Final certificate of compliance: The state elevator inspector shall issue a final certificate of compliance for each unit of equipment which has satisfactorily met all of the inspections and tests required by this chapter. The final certificate shall bear the signature of the authorized inspector, the rated load and speed, the date of the acceptance tests and inspections, and the name of the state elevator inspector who made or witnessed such tests and inspections. The final certificate shall also include the necessary space for inserting the name of the *person* who made the periodic inspection and witnessed the periodic and

maintenance tests and the date of the periodic inspection and the maintenance test.

3013.3 Construction use permit. A state elevator inspector is authorized to issue a construction use *permit* for any equipment covered by this chapter, which is hereafter installed, relocated or altered, to permit limited use by the *person* designated therein during the period of such installation, relocation or *alteration*. Such certificate shall be signed by the state elevator inspector shall bear the dates of issue, and shall designate the class of service allowed.

3013.3.1 Tests and minimum safeguards required: A construction use *permit* shall not be issued for an elevator until such elevator has satisfactorily passed tests for rated load, car and counterweight safety, and terminal stopping devices. *Permanent* or *temporary guards* and enclosures shall be installed on the car, around the hoistway and at the landing entrances. Equipment other than elevators shall be tested and protectives shall be provided as deemed necessary by the code *official* to ensure safe operation for the limited service specified.

3013.3.2 Special conditions: Automatic and continuous-pressure operation elevators shall not be placed in *temporary* operation from the landing pushbuttons unless the door-locking device and interlocks required by ASME A17.1 listed in Chapter 35 are installed and operative. Where the car is operable only from the inside, landing entrance *guards* shall be provided with locks that are releasable from the hoistway side only.

3013.3.3 Time limitation: Construction use *permits* shall be issued for periods of not more than 90 days. The state elevator inspector is authorized to renew the construction use *permits* for additional periods of not more than 90 days each.

3013.4 Posting certificates of compliance: The most recently -issued certificate of compliance shall be posted in a conspicuous place on the elevator, and made available to the state elevator inspector upon request.

CHAPTER 31 SPECIAL CONSTRUCTION

SECTION 3103 TEMPORARY STRUCTURES

3103.1 General. Tents, temporary structures and other membrane structures erected for a period of less than 180 days shall comply with Section 430 of this code. Those erected for a longer period of time shall comply with applicable sections of this code relating to permanent structures.

SECTION 3107 SIGNS

Note: Section 3107 is hereby DELETED in its entirety from the 2012 IBC.

SECTION 3108 TELECOMMUNICATION AND BROADCAST TOWERS

3108.6 Radio and television antennas on buildings, permits not required. A *building permit* is not required for roof installation of antennal *structures* not more than 12 feet (3658 mm) in height for private radio or television reception. Such a *structure* shall not be erected so as to injure the *roof covering*, and when removed from the roof, the *roof covering* shall be repaired to maintain weather and water tightness. The installation of any antennal *structure* mounted on the roof of a *building* shall not be erected nearer to the *lot line* than the total height of the antennal *structure* above the roof, nor shall such *structure* be erected near electric power lines or encroach upon any street or other public space.

3108.7 Radio and television antennas on buildings, permits required. Approval shall be secured for all roof-mounted antennal *structures* more than 12 feet (3658mm) in height above the roof. The application shall be accompanied by detailed drawings of the *structure* and methods of *anchorage*. All connections to the roof *structure* shall be properly flashed to maintain water tightness. The design and materials of construction shall comply with the requirements of Section 3108.1 for character, quality and minimum dimension.

3108.8 Dish antennas. An antenna consisting of a radiation element which transmits or receives radiation signals generated as electrical, light or sound energy, and supported by a *structure* with or without a reflective component to the radiating dish, usually in a circular shape with a parabolic curve design constructed of a *solid* or open mesh surface, shall be known as a dish antenna.

3108.8.1 Permits. The approval of the code *official* shall be secured for all dish antennal *structures* more than 2 feet (610mm) in diameter erected on the roof of or attached to any *building* or *structure*. A *permit* is not required for dish antennas not more than 2 feet (610mm)

in diameter erected and maintained on the roof of any *building*.

3108.8.2 Structural provisions. Dish antennas larger than 2 feet (610mm) in diameter shall be subject to the structural provisions of Sections 1608, 1609 and 3108.1. The snow load provisions of Section 1608 shall not apply where the antenna has a heater to melt falling snow.

SECTION 3109 SWIMMING POOLS

3109.1 General. Swimming and bathing pools shall conform to the requirements of this section, provided that these regulations shall not be applicable to any pool less than 24 inches (610 mm) deep or having a surface *area* less than 250 square feet (23.25 m²), except where such pools are *permanently* equipped with a water-recirculating system or involve structural materials. For the purpose of this code, pools are classified as *private swimming pools* or *public swimming pools*, as defined in Section 3109.2. Materials and constructions used in *swimming pools* shall comply with the applicable requirements of this code.

3109.2 Definitions. The following definitions are defined in Chapter 2:

BARRIER.

HOT TUB.

IN-GROUND POOL.

POWER SAFETY COVER.

PRIVATE SWIMMING POOL, OUTDOOR.

PRIVATE SWIMMING POOL, INDOOR..

PUBLIC SWIMMING POOL.

SPA.

3109.3 Permits, pool occupant load calculations and construction documents. A *swimming pool* or appurtenances thereto shall not be constructed, installed, enlarged or altered until *construction documents* have been submitted and a *permit* has been obtained from the code *official* having *jurisdiction* in accordance with Sections 104.15 and 104.16 of this code. The *occupant load* calculations of Section 3109.3.1 shall be used for the purpose of determining the *jurisdiction* and *licensed design professional* seal requirements. The approval of all city, county and state authorities having *jurisdiction* over *swimming pools* shall be obtained before applying to the code *official* for a *permit*. Certified copies of these approvals shall be filed as part of the supporting data for the *permit* application.

**Table 3109.3.1
POOL OCCUPANT LOAD**

OCCUPANCY	GROSS AREA IN SQUARE FEET PER OCCUPANT
Pool Surface Area	50 Gross
Deck Area Around the Pool	15 Gross

3109.3.2 Construction documents. *Construction documents* shall accurately show:

1. *Dimensions* and construction of the pool and appurtenances;
2. Established distances to *lot lines, buildings, walks and fences*;
3. Details of the water supply system, drainage and water disposal systems;
4. All appurtenances pertaining to the *swimming pool*; and
5. Detailed *construction documents of structures, vertical elevations and sections through the pool showing depth.*

3109.4 Locations. *Private swimming pools* shall not encroach on any front or side *yard* required by this code or by the governing zoning law, unless in accordance with specific rules of the *jurisdiction* in which the pool is located. A *wall* of a *swimming pool* shall not be located less than 6 feet (1829 mm) from any rear or side property line or 10 feet (3048 mm) from any street property line, unless in accordance with the specific rules of the *jurisdiction* in which the pool is located.

3109.5 Structural design. The pool *structure* shall be engineered and designed to withstand the expected forces to which the pool will be subjected.

3109.5.1 Wall slopes. To a depth up to 2 feet 9 inches (838 mm) from the top, the *wall* slope shall not be more than one unit horizontal in five units vertical (1:5).

3109.5.2 Floor slopes. The slope of the floor on the shallow side of the transition point shall not exceed one unit vertical to seven units horizontal (1:7). For public pools greater than 1,200 square feet (111.6 m²), the slope of the floor on the shallow side of the transition point shall not exceed one unit vertical to ten units horizontal (1:10). The transition point between shallow and deep water shall not be more than 5 feet (1524 mm) deep.

3109.5.3 Walkways. All *public swimming pools* shall have walkways not less than 4 feet (1219 mm) in width surrounding the pool. Curbs or sidewalks around any

swimming pool shall have a slip-resistant surface for a width of not less than 1 foot (305 mm) at the edge of the pool, and shall be so arranged as to prevent return of surface water to the pool.

3109.5.4 Steps and ladders. At least one *means of egress* shall be provided from private pools. Public pools shall provide ladders or other *means of egress* at both sides of the diving section and at least one *means of egress* in the shallow section; or at least one *means of egress* in the deep section and the shallow section if diving boards are not provided. Treads of steps and ladders shall have slip-resistant surfaces and *handrails* on both sides, except that *handrails* are not required where there are not more than four steps or where the steps extend the full width of the side or end of the pool. Treads and risers of the pool steps shall conform to the following:

1. Step treads shall have a minimum unobstructed horizontal depth of 10 inches (254 mm) and a minimum unobstructed surface *area* of 240 square inches (0.15m²).
2. Risers shall have a maximum uniform height of 12 inches (305mm) as measured at the centerline of the tread. The height of the bottom riser shall not vary more than plus or minus 2 inches (51mm) from the uniform riser height.

3109.6 Water supply. All *swimming pools* shall be provided with a potable water supply, free of cross connections with the pool or its equipment.

3109.6.1 Water treatment. *Public swimming pools* are regulated by the Cabinet for Health and Family Services, Department of Public Health, for purposes of water distribution and treatment systems and the proper operation and maintenance of all pool facilities (*See* 902 KAR 10:120, Kentucky Public Swimming and Bathing Facilities Regulation). *Private swimming pools* shall be designed and installed so that there is a pool water turnover at least once every 18 hours, Filters shall not filter water at a rate in excess of 5 gallons per minute per square foot (205L/min/m²) of surface *area*. The pool *owner* shall be instructed in the care of maintenance of the pool by the supplier or builder, including treatment with high-test calcium hypochlorite (dry chlorine), sodium hypochlorite (*liquid* chlorine) or equally effective germicide and algacide and the importance of proper pH (alkalinity and acidity) control.

3109.7 Appurtenant structures. All *appurtenant structures, installations and equipment, such as showers, dressing rooms, equipment houses or other buildings and structures, including plumbing, heating and air conditioning systems, shall comply with all applicable requirements of this code.*

3109.7.1 Accessories. All *swimming pool accessories* shall be designed, constructed and installed so as not to

be a safety hazard. Installations or *structures* for diving purposes shall be properly anchored to ensure stability.

3109.8 Equipment installations. Pumps, filters and other mechanical and electrical equipment for *public swimming pools* shall be enclosed in such a manner as to provide access only to authorized *persons* and not to bathers. Construction and drainage shall be arranged to avoid the entrance and accumulation of water in the vicinity of electrical equipment.

3109.8.1 Protection of heating equipment. Gas appliances located in rooms or spaces where *corrosive* or flammable chemicals are present shall be protected in accordance with the NFPA 54 National Fuel Gas Code.

3109.8.2 General. Suction outlets shall be designed to produce circulation throughout the pool or *spa*. Single-outlet systems, such as *automatic* vacuum cleaner systems, or multiple suction outlets, whether isolated by valves or otherwise, shall be protected against user entrapment.

3109.8.3 Suction fittings. Pool and spa suction outlets shall have a cover that conforms to ANSI/ASMEA112.19.8M, or an 18 inch x 23 inch (457mm by 584mm) drain grate or larger, or an *approved* channel drain system.

Exception: Surface skimmers.

3109.8.4 Atmospheric vacuum relief system required. Pool and *spa* single or multiple-outlet circulation systems shall be equipped with atmospheric vacuum relief should grate covers located therein become missing or broken. This vacuum relief system shall include at least one *approved* or engineered method of the type *specified* herein, as follows:

1. Safety vacuum release system conforming to ASME A112.19.17; or
2. An *approved* gravity drainage System.

3109.8.5 Dual drain separation. Single or multiple pump circulation systems have a minimum of two suction outlets of the *approved* type. A minimum horizontal or vertical distance 3 feet (914mm) shall separate the outlets. These suction outlets shall be piped so that water is drawn simultaneously through a vacuum-relief-protected line to the pump or pumps.

3109.8.6 Pool cleaner fittings. Where provided, vacuum or pressure cleaner fitting(s) shall be located in an *accessible* position(s) at least 6 inches (152mm) and not more than 12 inches (305mm) below the minimum operational water level or as an attachment to the skimmer(s).

3109.9 Enclosures for public and private swimming pools. Public and *private swimming pools* shall be provided with an enclosure surrounding the pool *area*. The enclosure shall meet the provisions of Sections 3109.9.1 through 3109.9.3.

3109.9.1 Enclosure. The enclosure shall extend not less than 4 feet (1219 mm) above the ground. All gates shall be *self-closing* and self-latching with the latches placed at least 4 feet (1219 mm) above the ground.

Exception: The following shall be exempt from the provisions of this section:

1. A *spa* or hot tub with an *approved* safety cover.
2. Fixtures that are drained after each use.

3109.9.2 Approved barriers. *Barriers* shall be designed so as to prevent uninvited *persons* from intruding into the pool *area*. Enclosures shall be designed to withstand a horizontal concentrated force load of 200 pounds (896 mm) applied on a 1-square-foot (0.093 m²) *area* at any point of the fence enclosure. Compliance with the following criteria shall constitute a safe *barrier*:

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 the *grade* and the bottom of the *barrier* shall be 4 inches (102 mm) measured on the side of the *barrier*, which faces away from the *swimming pool*.
2. Openings in the *barrier* shall not allow the passage of a 4-inch (102-mm) diameter sphere.
3. *Solid barriers* 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 24 inches (610mm), 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 ¾ inches (44mm) in width.
Exception: When intermediate horizontal members are located 34 inches (864mm) or more above *grade*, the spacing between vertical members shall not exceed 4 inches (102mm) in width.
5. Where the *barrier* is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 24 inches (610mm) or more, spacing between vertical members shall not exceed 4 inches (102mm). 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 2 ¼ inches (75mm) square unless the fence is provided with slats fastened at the top or the bottom which reduce the openings to not less than 1 ¾ inches (44mm).
7. Where the *barrier* is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members shall be not more than 1.75 inches (44 mm).

3109.9.3 Private swimming pool enclosures.

1. An indoor private pool enclosure may consist of the *walls* of the house including any entrance and *exit* doors, screens or glass separations designed for the purpose of preventing uninvited *persons* from entering the pool.
2. An exterior private pool enclosure may surround the pool *area* only or it may surround a larger *area* if the *barrier* prevents uninvited *persons* from entering the pool.

3109.10 Diving Boards. Minimum water depths and distances for diving hoppers for pools, based on board height above water, shall comply with Table 3109.10(1) for public pools and Table 3109.10(2) for private pools.

The maximum slope permitted between point D_2 and the transition point shall not exceed one unit vertical to three units horizontal (1:3) in private and public pools. D_1 is the point directly under the end of the diving boards D_2 is the point at which the floor begins to slope upwards to the transition point (see Figure 3109.10).

Figure 3109.10
MINIMUM WATER DEPTHS AND DISTANCES BASED ON BOARD
HEIGHT FOR PUBLIC AND PRIVATE POOLS

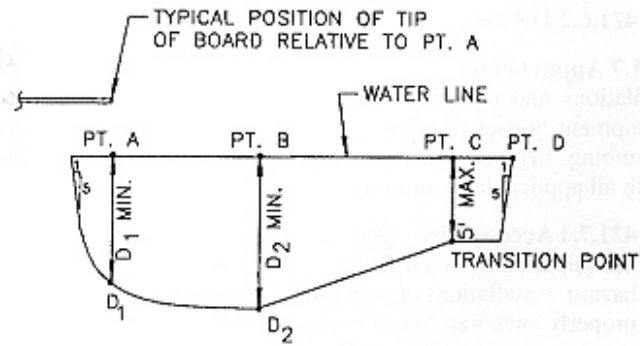


TABLE 3109.10 (1)
MINIMUM WATER DEPTHS AND DISTANCES BASED ON BOARD HEIGHT FOR PUBLIC POOLS

BOARD HEIGHT	MINIMUM DEPTH ^a AT D ₁ DIRECTLY UNDER END OF BOARD	DISTANCE ^a BETWEEN D ₁ AND D ₂	MINIMUM DEPTH AT D ₂
2'-2" (2/3 meter)	7'-0"	8'-0"	8'-6"
2'-6" (3/4 meter)	7'-6"	9'-0"	9'-0"
1 meter	8'-6"	10'-0"	10'-0"
3 meter	11'-0"	10'-0"	12'-0"

a. 1 foot = 304.8mm.

TABLE 3109.10 (2)
MINIMUM WATER DEPTHS AND DISTANCES BASED ON BOARD HEIGHT FOR PRIVATE POOLS

BOARD HEIGHT	MINIMUM DEPTH ^a AT D ₁ DIRECTLY UNDER END OF BOARD	DISTANCE ^a BETWEEN D ₁ AND D ₂	MINIMUM DEPTH AT D ₂
1'-8" (1/2 meter)	6'-0"	7'-0"	7'-6"
2'-2" (2/3 meter)	6'-10"	7'-6"	8'-0"
2'-6" (3/4 meter)	7'-5"	8'-0"	8'-0"
3'-4" (1 meter)	8'-6"	9'-0"	9'-0"

a. 1 foot = 304.8mm.

CHAPTER 33
SAFEGUARDS DURING CONSTRUCTION

SECTION 3305
SANITARY

3305.1 Facilities required. Sanitary facilities shall be provided during construction, remodeling or demolition activities in accordance with the *Kentucky State Plumbing Code*.

CHAPTER 34 EXISTING STRUCTURES

SECTION 3401 GENERAL

3401.2 Maintenance. *Building and structures*, and parts thereof, shall be maintained in a safe and sanitary condition. Devices or *safeguards* which are required by this code shall be maintained in conformance with the code edition under which installed. The *owner* or the *owner's* designated agent shall be responsible for the maintenance of *buildings and structures*. The requirements of this chapter shall not provide the basis for removal or abrogation of fire protection, safety systems and devices in *existing structures*.

3401.3 Compliance with other codes. *Alterations, repairs, additions* and changes of occupancy to *existing structures* shall comply with the provisions for *alterations, repairs additions* and changes of occupancy or relocation, respectively, in the *International Energy Conservation Code, International Fire Code, NFPA 54 Fuel Gas Code, International Mechanical Code, Kentucky Plumbing Code, International Residential Code and NFPA 70*. Where provisions of the other codes conflict with provisions of this chapter, this chapter shall take precedence.

SECTION 3403 ADDITIONS

3403.1 General. *Additions or alterations* to any *building or structure* shall comply with the requirements of the code for new construction. *Additions or alterations* shall not be made to an existing *building or structure* that will cause the existing *building or structure* to be in violation of any provisions of this code. An existing *building plus additions* shall comply with the height and *area* provisions of Chapter 5. Portions of the *structure* not altered and not affected by the *alteration* are not required to comply with the code requirements for a new *structure*. If a *fire wall* separates the existing portion from the *addition*, both *buildings* shall comply with the height and *area* provisions of Chapter 5 as separate *buildings*.

SECTION 3405 REPAIRS

3405.2.1 Evaluation. The *building* shall be evaluated by a *licensed design professional*, and the evaluation findings shall be submitted to the *code official*. The evaluation shall establish whether the damaged *building*, if *repaired* to its pre-damage state, would comply with the provisions of this code for wind and earthquake *loads*.

Wind *loads* for this evaluation shall be those prescribed in Section 1609. Earthquake *loads* for this evaluation, if

required, shall be permitted to be 75 percent of those prescribed in Section 1613.

SECTION 3409 HISTORIC BUILDINGS

3409.1 Historic buildings. The restoration or renovation of a *building* identified on a federal, state or local historic register, solely returning the *building* to its original design, shall not require the remainder of the *building* to comply with this code. However, *alterations, repairs* or changes of occupancy governed by Section 3404, 3405 and 3408 shall be subject to this code.

SECTION 3412 COMPLIANCE ALTERNATIVES

3412.2 Applicability. *Structures* existing prior to August 15, 1982, in which there is work involving *additions, alterations* or changes of occupancy shall be made to conform to the requirements of this section or the provisions of 3403 through 3407. The provisions in 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.

3412.3.2 Compliance with other codes. *Buildings* that are evaluated in accordance with this section shall comply with the International Property Maintenance Code and Kentucky Standards of Safety.

CHAPTER 35
REFERENCED STANDARDS

This chapter lists the standards that are referenced in various sections of this document. The standards are *listed* herein by the promulgating agency of the standard, the standard identification, the effective date and title, and the section or sections of this document that reference the standard. The application of the referenced standards shall be as *specified* in Section 102.4.

ASHRAE

American Society of Heating, Refrigeration
and Air-Conditioning Engineers, Inc.
1791 Tullie Circle, NE
Atlanta, GA 30329-2305

Standard Reference Number	Title	Referenced in code section number	
ASHRAE 62.1-2010	<i>Ventilation</i> for Acceptable Indoor Air Quality.....	2801.1, 2801.4	

ASME

American Society of Mechanical Engineers.
Three Park Avenue
New York, NY

Standard Reference Number	Title	Referenced in code section number	
A17.1 2007/CSA B44-07 and Addenda	Safety Code for Elevators and Escalators.....	907.3.3, 911.1.5, 1007.4, 1607.9.1, 3001.2, 3001.4, 3002.5, 3003.2, 3007.1, 3007.2, 3008.2, 3008.2.1 3008.7.6, 3008.8.1, 3009.2, 3009.2.1, 3009.2.2, 3011.3, 3411.8.2	
A17.2-2007	Guide for Inspection of Elevators, Escalators, and Moving Walks.....	3001.2	
A17.3-2008	Safety Code for Existing Elevators and Escalators.....	3001.2, 3009.2, 3009.2.1, 3009.2.2	
A17.4-1999	Guide for Emergency <i>Personnel</i>	3001.2	
A17.5-2004	Elevator and Escalator Electrical Equipment.....	3001.2	
A17.6-2010	Standard for Elevator Suspension, Compensations and Governor Systems (as per ASME A1.1-2010).....	3001.2	
A18.1-2008	Safety Standard for <i>Platform</i> Lifts and <i>Stairway</i> Chairlifts.....	1109.8, 2702.2.6, 3001.2, 3010.1, 30011.3, 3411.8.3	
B16.18-2001 (Reaffirmed 2005)	Cast Copper Alloy Solder <i>Joint</i> Pressure Fittings.....	909.13.1	
B16.22-2001 (Reaffirmed 2005)	Wrought Copper and Copper Alloy Solder <i>Joint</i> Pressure Fittings.....	909.13.1	
B20.1-2009	Safety Standard for Conveyors and Related Equipment.....	3001.2, 3005.3	
B31.3-2004	Process Piping.....	415.10.6	
Boilers and Pressure Vessels Code.....		2801.2, 2801.3	
B31.1—89	Power Piping.....	2801.2, 2801.3	
Section I—89	Power Boilers.....	2801.2, 2801.3	
Section II—89	Materials.....	2801.2, 2801.3	
Section IV—89	Heating Boilers.....	2801.2, 2801.3	
Section V—89	Nondestructive Examination.....	2801.2, 2801.3	
Section VIII—89	Pressure Vessels.....	2801.2, 2801.3	
Section IX—89	Welding and Brazing.....	2801.2, 2801.3	

ICC

International Code Council, Inc.
500 New Jersey Ave, NW
6th Floor
Washington, DC 20001

Standard Reference Number	Title	Referenced in code section number
IECC—12	International Energy Conservation Code.....	101.4.6, 201.3, 1203.3.2, 1301.1.1, 1405.3, 3401.3

KY CODES

Standard Reference Number	Title	Referenced in code section number
FEMA 460, 9/2005	Federal Emergency Management Assistance.....	2209.1
815 KAR 10:060	Kentucky Standards of Safety.....	815 KAR 10:060, 101.5, 202, 901.2, 2702.3, 3412.3.2
815 KAR Chapter 20	Kentucky State Plumbing Code.....	101.4.4, 201.3, 415.8.4, 603.1.2, 718.5, 1206.3.3, 1503.4, 2901.1, 3305.1, 3401.3
SEAOK	<i>Special inspection</i> Guidelines.....	1704.3

NFPA

National Fire Protection Association
1 Batterymarch Park
Quincy, MA 02269-9101

Standard Reference Number	Title	Referenced in code section number
NFPA 54-09	National Fuel Gas Code.....	101.4.2, 201.3, Table 307.1(1), 415.8.3, 2112.11.1.2, 2113.15, 2801.1, 3109.8.1, 3401.3
NFPA 70-14	National Electrical Code.....	101.4.1, 108.3, 415.10.1.8, 904.3.1, 907.6.1, 909.12.1, 909.16.13, 1205.4.1, 2701.1, 2701.2, 2702.1, 3401.3, H106.1, H106.2, K101, K111.1
NFPA 79-07	Electrical Standard for Industrial Machinery.....	2701.4
NFPA 90A-99	Installation of Air-Conditioning and Ventilating Systems.....	1203.6
NFPA 90B-99	Installation of Warm Air Heating and Air-Conditioning Systems.....	1203.6
NFPA 101-00	Life Safety Code.....	117.1, 117.2, 1028.6.2
NFPA 520-10	Subterranean Spaces.....	405.1, 425.2