# WASHINGTON STATE BUILDING CODE

# CHAPTER 51-54A 2012 Edition

# Washington State Amendments to the 2012 INTERNATIONAL FIRE CODE



**Washington State Building Code Council** 

Effective July 1, 2013

Copies of the State Building Codes and complete copies of the International Fire Code as published by the International Code Council may be obtained from:

Washington Association of Building Officials
Post Office Box 7310
Olympia, Washington 98507-7310
(360) 628-8669 www.wabobookstore.org
or toll free in Washington State at (888) 664-9515

First Edition Titled International Fire Code Chapter 51-54A WAC Effective July 1, 2013 First Edition based on WSR 13-04-063

### Preface

**Authority:** The International Fire Code (Chapter 51-54A WAC) is adopted by the Washington State Building Code Council pursuant to Chapters 19.27 and 70.92 RCW. These codes were first adopted by reference by the Washington State Legislature in 1974. In 1985, the Legislature delegated the responsibility of adoption and amendment of these codes to the State Building Code Council.

Supersession of Previous Codes: Chapter 51-54A WAC supersedes Chapters 51-44 and 51-45 WAC.

**Code Precedence:** The State Building Code Act, Chapter 19.27 RCW, establishes the following order of precedence among the documents adopted as parts of the State Building Code:

International Building Code, Standards and amendments -WAC 51-50; International Residential Code, Standards and amendments – WAC 51-51; International Mechanical Code, Standards and amendments - WAC 51-52; International Fire Code, Standards and amendments - WAC 51-54A; Uniform Plumbing Code, Standards and amendments - WAC 51-56.

Where there is a conflict between codes, an earlier named code takes precedence over a later named code. In the case of conflict between the duct insulation requirements of the International Mechanical Code and the duct insulation requirements of the Energy Code, the Energy Code, or where applicable, a local jurisdiction's energy code, shall govern.

Where, in any specific case, different sections of this Code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is conflict between a general requirement and a specific requirement, the specific requirement shall be applicable.

**Organization and Numbering:** These rules are written to allow compatible use with the International Fire Code. All sections which are amended, deleted, or added are referenced.

**Enforcement:** The State Building Code Act requires that each local jurisdiction enforce the State Building Code within its jurisdiction. Any jurisdiction can contract with another jurisdiction or an inspection agency to provide the mandated enforcement activities.

### **Amendments to the State Building Code:**

The State Building Code Council has adopted review procedures and approval criteria for local amendments. These procedures and criteria are found in Chapter 51-04 WAC. The Council has exempted from its review any amendments to the administrative provisions of the various codes.

Forms for proposing statewide amendments to the State Building Code are available from the State Building Code Council staff.

A. Amendments of Statewide Application: On a yearly basis the State Building Code Council will consider proposals to amend the State Building Code. Unless directed by the State Legislature, federal mandates or court order, the Council will not enter formal rulemaking until 2015 as part of its consideration of adoption of the 2015 series of codes.

Proposals to amend the State Building Code shall be made on forms provided by the Building Code Council.

Code Change Proposal Submittal Deadline: March 1st of each year.

B. **Local Amendments**: Any jurisdiction may amend the State Building Code provided the amendments do not reduce the minimum performance standards of the codes. There are areas where local amendments are limited or prohibited:

**Prohibited Amendments**: Residential provisions of the State Energy Code (WAC 51-11R and 51-11C), the Ventilation provisions of the International Residential Code (WAC 51-51) or International Mechanical Code (WAC 51-52); any provision of the International Building Code (WAC 51-50) or International Residential Code affecting accessibility; and standards specifically adopted in Chapters 19.27 and 19.27A cannot be amended by any local jurisdiction.

**Residential Amendments**: Amendments by local jurisdictions which affect the construction of single family and multi-family residential buildings must be reviewed and approved by the State Building Code Council before such amendments can be enforced. The State Building Code Act provides the following definition:

Multi-family residential building: means common wall residential buildings that consist of four or fewer units, that do not exceed two stories in height, that are less than 5,000 square feet in area, and that have a one-hour fire-resistive occupancy separation between units.

Application forms for Council review of local amendments are available from the State Building Code Council Staff.

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**Printing Format:** This version of the rules is published as a series of insert or replacement pages. Each page provides instructions for installing them in the model code book. Amendments to the model code which are new or revised from the previous edition of this code are indicated by a line in the margin next to the revised portions.

**Effective Date:** These rules were adopted by the State Building Code Council on November 9, 2012. These rules are effective throughout the state on July 1, 2013. (This version of the code supersedes WAC 51-54.)

**Building Permit Fees**: The activities of the State Building Code Council are supported by permit fees collected by each city and county. Section 19.27.085 of the State Building Code Act requires that a fee of \$4.50 be imposed on each building permit issued by each city and county. In addition, a fee of \$2.00 per unit shall be imposed for each dwelling unit after the first unit, on each building containing more than one residential unit. For the purpose of this fee, WAC 365-110-035 defines building permits as any permit to construct, enlarge, alter, repair, move, improve, remove, convert or demolish any building or structure regulated by the Building Code. Exempt from the fee are plumbing, electrical, mechanical permits, permits issued to install a mobile/manufactured home, commercial coach or factory built structure, or permits issued pursuant to the International Fire Code.

Each city and county shall remit moneys collected to the state treasury quarterly. No remittance is required until a minimum of \$50.00 has accumulated.

These permit fees are the amounts current in January 2013. Such fees may be changed by the State Legislature.

**Opinions**: Only at the request of local enforcement official, the State Building Code Council may issue interpretations/opinions of those provisions of the State Building Code created by the Council, or provisions of the model codes amended by the Council. Final interpretation authority for any specific permit resides with the local enforcement official.

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# CHAPTER 51-54A WAC STATE BUILDING CODE ADOPTION AND AMENDMENT OF THE 2012 EDITION OF THE INTERNATIONAL FIRE CODE

### WAC 51-54A-001 AUTHORITY

These rules are adopted under the authority of Chapter 19.27 RCW.

### **WAC 51-54A-002 PURPOSE**

The purpose of these rules is to implement the provisions of Chapter 19.27 RCW, which provides that the State Building Code Council shall maintain the State Building Code in a status which is consistent with the purpose as set forth in RCW 19.27.020. In maintaining the codes the Council shall regularly review updated versions of the codes adopted under the act, and other pertinent information, and shall amend the codes as deemed appropriate by the Council.

### WAC 51-54A-003 INTERNATIONAL FIRE CODE

The 2012 edition of the International Fire Code, published by the International Code Council, is hereby adopted by reference with the following additions, deletions, and exceptions.

### WAC 51-54A-007 EXCEPTIONS

The exceptions and amendments to the International Fire Code contained in the provisions of Chapter 19.27 RCW shall apply in case of conflict with any of the provisions of these rules.

Codes referenced which are not adopted through RCW 19.27.031 or RCW 19.27A shall not apply unless specifically adopted by the authority having jurisdiction. The 2012 International Wildland Urban Interface Code is included in this Code as Section 8100 with amendments found in Appendix Chapter K.

The provisions of this code do not apply to temporary growing structures used solely for the commercial production of horticultural plants including ornamental plants, flowers, vegetables, and fruits. "Temporary growing structure" means a structure that has the sides and roof covered with polyethylene, polyvinyl, or similar flexible synthetic material and is used to provide plants with either frost protection or increased heat retention. A temporary growing structure is not considered a building for purposes of this code.

The provisions of this code do not apply to the construction, alteration, or repair of temporary worker housing except as provided by rule adopted under chapter 70.114A RCW or chapter 37, Laws of 1998 (SB 6168). "Temporary worker housing" means a place, area, or piece of land where sleeping places or housing sites are provided by an employer for his or her employees or by another person, including a temporary worker housing operator, who is providing such accommodations for employees, for temporary, seasonal occupancy, and includes "labor camps" under RCW 70.54.110.

The manufacture, storage, handling, sale and use of fireworks shall be governed by Chapter 70.77 RCW and by Chapter 212-17 WAC and local ordinances consistent with Chapter 212-17 WAC.

### WAC 51-54A-008 IMPLEMENTATION

The International Fire Code adopted by Chapter 51-54A WAC shall become effective in all counties and cities of this state on July 1, 2013.

Effective July 1, 2013

**101.2.1 Appendices.** Provisions in the appendices shall not apply unless specifically adopted. The State Building Code Council has determined that a local ordinance adopting Appendix K Wildland Urban Interface Code may be adopted by any local government upon notification of the Council.

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**ADULT FAMILY HOME** A dwelling, licensed by Washington state, in which a person or persons provide personal care, special care, room and board to more than one but not more than six adults who are not related by blood or marriage to the person or persons providing the services.

**ALERT SIGNAL.** A distinctive signal indicating the need for trained personnel and occupants to initiate a specific action, such as shelter-in-place.

**ALERT SYSTEM.** Approved devices, equipment and systems or combinations of systems used to transmit or broadcast an alert signal.

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**CHILD CARE**. For the purposes of these regulations, child care is the care of children during any period of a 24-hour day.

**CHILD CARE, FAMILY HOME.** A child care facility, licensed by Washington state, located in the dwelling of the person or persons under whose direct care and supervision the child is placed, for the care of twelve or fewer children, including children who reside at the home.

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**COVERED BOAT MOORAGE**. A pier or system of floating or fixed access ways to which vessels on water may be secured and any portion of which are covered by a roof.

**ELECTRICAL CODE**. The National Electrical Code, promulgated by the National Fire Protection Association, as adopted by rule or local ordinance under the authority of Chapter 19.28 RCW.

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**EMERGENCY DRILL.** An exercise performed to train staff and occupants and to evaluate their efficiency and effectiveness in carrying out emergency procedures.

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# GRAVITY - OPERATED DROP OUT VENTS. Automatic smoke and heat vents containing heat-sensitive glazing designed to shrink and drop out of the vent openings when exposed to fire.

**HOSPICE CARE CENTER.** A building or portion thereof used on a 24-hour basis for the provision of hospice services to terminally ill inpatients.

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MOTOR VEHICLE. Includes, but not limited to, a vehicle, machine, tractor, trailer or semitrailer, or any combination thereof, propelled or drawn by mechanical power and designed for use upon the highways in the transportation of passengers or property. It does not include a vehicle, locomotive or car operated exclusively on a rail or rails, or a trolley bus operated by electric power derived from a fixed overhead wire, furnishing local passenger transportation similar to street-railway service. The term "motor vehicle" also includes freight containers or cargo tanks used, or intended for use, in connection with motor vehicles.

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NIGHTCLUB. An A-2 Occupancy use under the 2006 International Building Code in which the aggregate area of concentrated use of unfixed chairs and standing space that is specifically designated and primarily used for dancing or viewing performers exceeds three hundred fifty square feet, excluding adjacent lobby areas. "Nightclub" does not include theaters with fixed seating, banquet halls, or lodge halls.

**Group I-2.** This occupancy shall include buildings and structures used for medical care on a 24-hour basis for more than five persons who are incapable of self-

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preservation. This group shall include, but not be limited to, the following:

Foster care facilities Detoxification facilities Hospice care centers Hospitals Nursing homes Psychiatric hospitals

**Five or fewer persons receiving care.** A facility such as the above with five or fewer persons receiving such care shall be classified as Group R-3 or shall comply with the *International Residential Code* provided an *automatic sprinkler system* is installed in accordance with Section 903.3.1.3 or with Section P2904 of the *International Residential Code*.

**Licensed care facility**. A facility such as the above providing licensed care to clients in one of the categories listed in Section 310.1 of the International Building Code licensed by Washington state shall be classified as Group R-2.

Family home child care. Family home child care licensed by Washington state for the care of twelve or fewer children shall be classified as Group R-3 or shall comply with the *International Residential Code*. Adult care facility. A facility that provides accommodations for less than 24 hours for more than five unrelated adults and provides supervision and personal care services shall be classified as Group I-4.

**Exception:** Where the occupants are capable of responding to an emergency situation without physical assistance from the staff, the facility shall be classified as Group R-3.

**Child care facility.** Child care facilities that provide supervision and personal care on a less than 24-hour basis for more than five children 2 1/2 years of age or less shall be classified as Group I-4.

### **Exceptions:**

- A child day care facility that provides care for more than five but no more than 100 children 2 1/2 years or less of age, where the rooms in which the children are cared for are located on a level of exit discharge serving such rooms and each of these child care rooms has an exit door directly to the exterior, shall be classified as Group E.
- Family child care homes licensed by Washington state for the care of 12 or fewer children shall be classified as Group R-3.

**RESIDENTIAL GROUP R.** Residential Group R includes, among others, the use of a building or structure, or a portion thereof, for sleeping purposes when not classified as an Institutional Group I or when not regulated by the International Residential Code. This group shall include: **R-1** Residential occupancies containing sleeping units where the occupants are primarily transient in nature, including:

Boarding houses (transient) with more than 10 occupants

Congregate living facilities (transient) with more than 10 occupants

Hotels (transient)

Motels (transient)

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

Apartment houses

Assisted living facilities as licensed by Washington state under chapter 388-78A WAC

Boarding houses (non-transient) with more than 16 occupants

Congregate living facilities (transient) with more than 16 occupants

Convents

**Dormitories** 

Fraternities and sororities

Hotels (non-transient)

Live/work units

Monasteries

Motels (non-transient)

Residential treatment facilities as licensed by Washington state under Chapter 246-337 WAC

Vacation timeshare properties

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

Buildings that do not contain more than two dwelling

Boarding houses (nontransient) with 16 or fewer occupants.

Boarding houses (transient) with 10 or fewer occupants.

Care facilities that provide accommodations for five or fewer persons receiving care.

Congregate living facilities (nontransient) with 16 or fewer occupants.

Congregate living facilities (transient) with 10 or fewer occupants.

Care facilities within a dwelling. Care facilities for five or fewer persons receiving care that are within a single-family dwelling are permitted to comply with the International Residential Code provided an automatic sprinkler system is installed in accordance with Section 903.3.1.3 or with Section P2904 of the International Residential Code.

Adult family homes, family home child care. Adult family homes and family home child care facilities that are within a single-family home are permitted to comply with the International Residential Code.

**Foster family care homes.** Foster family care homes licensed by Washington state are permitted to comply with the International Residential Code, as an accessory use to a dwelling, for six or fewer children including those of the resident family.

R-4 Classification is not adopted. Any reference in this code to R-4 does not apply.

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**PORTABLE SCHOOL CLASSROOM.** A structure, transportable in one or more sections, which requires a chassis to be transported, and is designed to be used as an educational space with or without a permanent foundation. The structure shall be trailerable and capable of being demounted and relocated to other locations as needs arise.

**RECALL SIGNAL**. An electrically or mechanically operated signal used to recall occupants after an emergency drill or to terminate a shelter-in-place event that shall be distinct from any alarm or alert signal used to initiate an emergency plan, or other signals.

**SHELTER-IN-PLACE.** An emergency response used to minimize exposure of facility occupants to chemical or environmental hazards by taking refuge in predetermined interior rooms or areas where actions are taken to isolate the interior environment from the exterior hazard.

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**308.1.9 Aisles and exits.** Candles shall be prohibited in areas where occupants stand, or in an aisle or exit. **Exception:** Candles used in religious ceremonies.

**308.1.7 Religious ceremonies.** Participants in religious ceremonies shall not be precluded from carrying hand-held candles. See RCW 19.27.031(3).

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**402.1 Definitions.** The following terms are defined in Chapter 2:

ALARM SIGNAL

ALERT SIGNAL

**ALERT SYSTEM** 

**EMERGENCY DRILL** 

SHELTER-IN-PLACE

RECALL SIGNAL

**401.2 Approval.** Where required by the fire code official, fire safety plans, emergency procedures and employee training programs shall be approved.

- **404.1 General.** Fire safety, evacuation, shelter-in-place plans and associated drills shall comply with the requirements of Sections 404.2 through 404.5.1.
- **404.2 Fire safety and evacuation plans.** Fire safety and evacuation plans shall comply with the requirements of Sections 404.2.1 through 404.2.2.2.
  - **404.2.1 Where required.** An approved fire safety and evacuation plan shall be prepared and maintained for the following occupancies and buildings.
    - 1. Group A having an occupant load of 100 or more.
    - Group B buildings having an occupant load of 500 or more persons or more than 100 persons above or below the lowest level of exit discharge.
    - 3. Group E.
    - 4. Group F buildings having an occupant load of 500 or more persons or more than 100 persons above or below the lowest level of exit discharge.
    - 5. Group H.
    - 6. Group I.
    - 7. Group R-1.
    - 8. Group R-2 college and university buildings, Boarding homes, group homes, and residential treatment facilities licensed by the state of Washington.
    - 9. High-rise buildings.
    - 10. Group M buildings having an occupant load of 500 or more persons or more than 100 persons above or below the lowest level of exit discharge.
    - 11. Covered malls exceeding 50,000 square feet (4645 m²) in aggregate floor area.
    - 12. Open mall buildings exceeding 50,000 square feet (4645 m²) in aggregate area within perimeter line.
    - 13. Underground buildings.
    - 14. Buildings with an atrium and having an occupancy in Group A, E or M.
  - **404.2.2 Contents.** Fire evacuation and safety plan contents shall be in accordance with Sections 404.2.2.1 and 404.2.2.2.

# **404.2.2.1 Fire evacuation plans.** Fire evacuation plans shall include the following:

- 1. Emergency egress or escape routes and whether evacuation of the building is to be complete or, where approved, by selected floors or areas only.
- 2. Procedures for employees who must remain to operate critical equipment before evacuating.
- 3. Procedures for assisted rescue for persons unable to use the general means of egress unassisted.

- 4. Procedures for accounting for employees and occupants after evacuation has been completed.
- 5. Identification and assignment of personnel responsible for rescue or emergency medical aid.
- 6. The preferred and any alternative means of notifying occupants of a fire.
- 7. The preferred and any alternative means of reporting fires and other emergencies to the fire department or designated emergency response organization.
- 8. Identification and assignment of personnel who can be contacted for further information or explanation of duties under the plan.
- A description of the emergency voice/alarm communication system alert tone and preprogrammed voice messages, where provided.

# **404.2.2.2 Fire safety plans.** Fire safety plans shall include the following:

- 1. The procedure for reporting a fire or other emergency.
- 2. The life safety strategy and procedures for notifying, relocating or evacuating occupants, including occupants who need assistance.
- 3. Site plans indicating the following:
  - 3.1. The occupancy assembly point.
  - 3.2. The locations of fire hydrants.
  - 3.3. The normal routes of fire department vehicle access.
- 4. Floor plans identifying the locations of the following:
  - 4.1. Exits.
  - 4.2. Primary evacuation routes.
  - 4.3. Secondary evacuation routes.
  - 4.4. Accessible egress routes.
  - 4.5. Areas of refuge.
  - 4.6. Exterior areas for assisted rescue.
  - 4.7. Manual fire alarm boxes.
  - 4.8. Portable fire extinguishers.
  - 4.9. Occupant-use hose stations.
  - 4.10. Fire alarm annunciators and controls.
- A list of major fire hazards associated with the normal use and occupancy of the premises, including maintenance and housekeeping procedures.
- Identification and assignment of personnel responsible for maintenance of systems and equipment installed to prevent or control fires.
- Identification and assignment of personnel responsible for maintenance, housekeeping and controlling fuel hazard sources.
- **404.3 Shelter-in-place plans.** Shelter-in-place plans shall comply with the requirements of Sections 404.3.1 through 404.3.2.

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**404.3.1 Where required.** A shelter-in-place plan shall be prepared and maintained for all Group E occupancies.

**Exception:** Daycares not colocated on a Group E campus.

- **404.3.2 Shelter-in-place plan contents.** Shelter-in-place plans shall include the following:
  - 1. Identification of the procedures of initiating the shelter-in-place plan throughout the facility or campus.
  - Identification of prearranged alert and recall signals to notify all occupants.
  - 3. Identification of procedures for reporting the facility is sheltering-in-place to the local emergency dispatch center.
  - A means of two-way communication between a central location and each secure area and consideration for maintaining means of communication in absence of primary power..
  - 5. Identification of protective security measures.
  - 6. Location of emergency supplies.
  - 7. Accountability procedures for staff to report the presence or absence of occupants.
  - Identification of crisis response team members in accordance with the National Incident Management System.
  - 9. Actions to be taken in the event of a fire or medical emergency while sheltering-in-place.
- **404.4 Maintenance.** Emergency plans shall be reviewed or updated annually or as necessitated by changes in staff assignments, occupancy or the physical arrangement of the building.
- **404.5 Availability.** Emergency plans shall be available in the workplace for reference and review by employees, and copies shall be furnished to the fire code official for review upon request.
- 405.1 General. Emergency drills complying with the provisions of this section shall be conducted at least annually in the occupancies listed in Section 404.2.1 or when required by the fire code official. Drills shall be designed in cooperation with the local authorities.
- **405.2 Frequency.** Required emergency drills shall be held at the intervals specified in Table 405.2 or more frequently where necessary to familiarize all occupants with the drill procedure.
- **405.2.1 Group E occupancies.** The occupancy shall conduct at a minimum the following drills during the year:
- One drill using the school mapping information system. Exception: Day cares not colocated on a school campus.
- 2. Six fire evacuation drills.
- 3. One shelter-in-place drill.

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- **405.4 Time.** Drills shall be held at unexpected times and under varying conditions to simulate the unusual conditions that occur in case of an emergency.
- **405.5 Recordkeeping.** Records shall be maintained of required emergency evacuation drills and include the following information:
  - 1. Identity of the person conducting the drill.
  - 2. Date and time of the drill.
  - 3. Notification method used.
  - 4. Staff members on duty and participating.
  - 5. Number of occupants participating.
  - 6. Special conditions simulated.
  - 7. Problems encountered and corrective actions taken.
  - 8. Weather conditions when occupants were evacuated.
  - 9. Time required to accomplish complete evacuation, or shelter-in-place.

TABLE 405.2
EMERGENCY DRILL FREQUENCY AND PARTICIPATION

Group or Occupancy	Frequency	Participation
Group A	Quarterly	Employees
Group B <sup>c</sup>	Annually	Employees
Group E	Monthly <sup>a,e</sup>	All Occupants
Group F	Annually	Employees
Group I	Quarterly on each shift	Employees <sup>b</sup>
Group R-1	Quarterly on each shift	Employees
Group R-2 <sup>f</sup>	Quarterly on each shift	Employees
Group R-2 <sup>d</sup>	Four Annually	All Occupants
High-rise buildings	Annually	Employees

- a. The frequency shall be allowed to be modified in accordance with Section 408.3.2.
- b. Fire and evacuation drills in residential care assisted living facilities shall include complete evacuation of the premises in accordance with Section 408.10.5. Where occupants receive habilitation or rehabilitation training, fire prevention and fire safety practices shall be included as part of the training program.
- c. Group B buildings having an occupant load of 500 or more persons or more than 100 persons above or below the lowest level of exit discharge.
- d. Applicable to Group R-2 college and university buildings in accordance with Section 408.3.
- e. Day cares colocated on a Group E campus shall participate in emergency drills occurring on the campus.
- f. Applicable to boarding homes, group homes, and residential treatment facilities licensed by the state of Washington.
- **405.6 Notification.** Where required by the fire code official, prior notification of emergency drills shall be given to the fire code official.
- **405.7 Initiation.** Emergency drills shall be initiated in accordance with Sections 405.7.1 through 405.7.3.
  - **405.7.1 Fire evacuation drills.** Where a fire alarm system is provided, emergency evacuation drills shall be initiated by activating the fire alarm system. The fire

alarm monitoring company shall be notified prior to the activation of the fire alarm system for drill proposed and again at the conclusion of the transmission and restoration of the fire alarm system to normal mode.

**Exception:** Drills conducted between the hours of 9:00 p.m. and 6:00 a.m., in Group R-2 boarding homes, group homes, and residential treatment facilities licensed by the state of Washington.

**405.7.2 Shelter-in-place drills.** Shelter-in-place drills shall be initiated by the shelter-in-place alert signal, generated by the alerting system in accordance with Section 915.

**405.8 Accountability.** As building occupants arrive at the assembly point, efforts shall be made to determine if all occupants have been successfully evacuated and/or have been accounted for in the shelter-in-place.

**405.9 Recall and reentry.** The recall signal initiation shall be manually operated and under the control of the person in charge of the premises or the official in charge of the incident. No one shall reenter the premises until authorized to do so by the official in charge.

**406.1 General.** Employees in the occupancies listed in Section 404.2.1 shall be trained in the emergency procedures described in their emergency plans. Training shall be based on these plans and as described in Section 404.2 and 404.3.

**406.2 Frequency.** Employees shall receive training in the contents of the emergency plans and their duties as part of new employee orientation and at least annually thereafter. Records shall be kept and made available to the fire code official upon request.

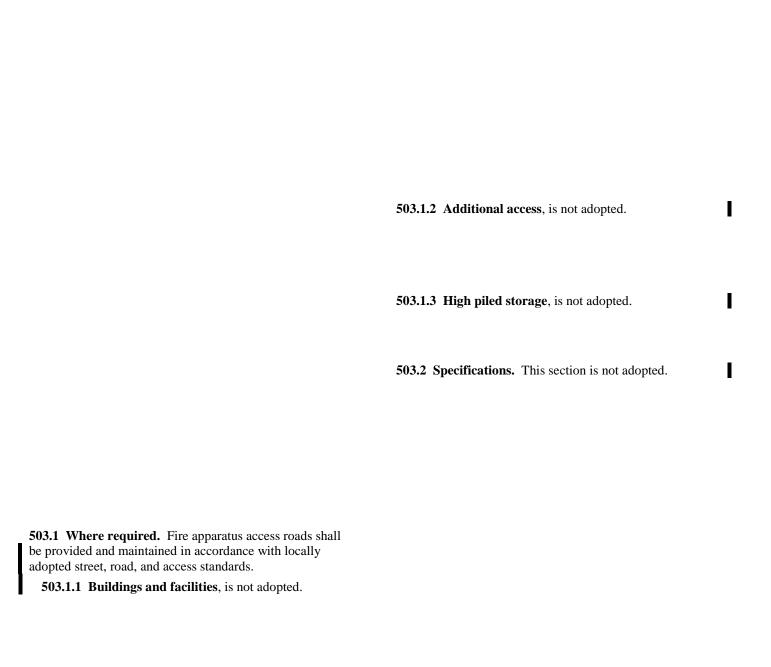
**406.3 Employee training program.** Employees shall be trained in fire prevention, evacuation, sheltering-in-place, and fire safety in accordance with Sections 406.3.1 through 406.3.3.

**406.3.3** Emergency shelter-in-place training. Where a facility has a shelter-in-place plan, employees shall be trained on the alert and recall signals, communication system, location of emergency supplies, the use of the incident notification and alarm system, and their assigned duties and procedures in the event of an alarm or emergency.

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**503.3 Marking.** This section is not adopted.

**503.4 Obstruction of fire apparatus access roads.** This section is not adopted.

**503.4.1 Traffic calming devices.** This section is not adopted.

**507.3 Fire flow.** Fire flow requirements for buildings or portions of buildings and facilities shall be determined by an approved method.

**Exception:** Fire flow is not required for structures under 500 square feet with a B, U or R-1 occupancy where structures are at least 30 feet from any other structure and are used only for recreation.

508.1.2 Separation. The fire command center shall be separated from the remainder of the building by not less than a 2-hour fire barrier constructed in accordance with Section 707 of the International Building Code or horizontal assembly constructed in accordance with Section 711 of the International Building Code, or both.

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TABLE 609.2.1

TYPE OF HOOD REQUIRED FOR DOMESTIC COOKING APPLIANCES IN THE FOLLOWING SPACES<sup>a, b</sup>

Type of Space	Type of	Type of Hood
Cl. 1	Cooking	TD 11 1
Church	1.Boiling,	Type II hood
	steaming and	
	warming	
	precooked food	
	2.Roasting, pan	Type I hood
	frying and deep	
	frying	
Community or	1. Boiling,	Residential hood <sup>c</sup> or
party room in	steaming and	Type II hood <sup>d</sup>
apartment and	warming	
condominium	precooked food	
	2.Roasting, pan	Type I hood
	frying and deep	
	frying	
Day care	1.Boiling,	Residential hood <sup>c</sup> or
	steaming and	Type II hood <sup>d</sup>
	warming	
	precooked food	
	2.Roasting, pan	Type I hood
	frying and deep	
	frying	
Dormitory,	1.Boiling,	Type II hood
boarding home,	steaming and	
nursing home	warming	
	precooked food	
	2.Roasting, pan	Type I hood
	frying and deep	
	frying	
Office lunch	1.Boiling,	Residential hood <sup>c</sup> or
room	steaming and	Type II hood <sup>d</sup>
	warming	
	precooked food	
	2.Roasting, pan	Type I hood
	frying and deep	
	frying	
a Commercial cooking		with Section 507.2 of the

<sup>a</sup> Commercial cooking appliances shall comply with Section 507.2 of the International Mechanical Code.

**609.2** Where required. A Type I hood shall be installed at or above all commercial cooking appliances and domestic cooking appliances used for commercial purposes that produce grease laden vapors.

## **Exceptions:**

- 1. A Type I hood shall not be required for an electric cooking appliance where an approved testing agency provides documentation that the appliance effluent contains 5 mg/m<sup>3</sup> or less of grease when tested at an exhaust flow rate of 500 cfm (0.236 m<sup>3</sup>/s) in accordance with Section 17 of UL 710B.
- 2. A Type I hood shall not be required to be installed in an R-2 occupancy with not more than 16 residents.

**609.2.1 Domestic cooking appliances used for commercial purposes.** Domestic cooking appliances utilized for commercial purposes shall be provided with Type I, Type II or residential hoods as required for the type of appliances and processes in accordance with Table 609.2.1 and Sections 507.2, 507.2.1 and 507.2.2 of the International Mechanical Code.

### 609.3 Operations, inspection and maintenance.

Commercial cooking systems shall be operated, inspected and maintained in accordance with Sections 609.3.1 through 609.3.4 and Chapter 11 of NFPA 96.

<sup>&</sup>lt;sup>b</sup> Requirements in this table apply to electric or gas fuel appliances only. Solid fuel appliances or charbroilers require Type I hoods.

<sup>&</sup>lt;sup>c</sup> Residential hood shall ventilate to the outside.

<sup>&</sup>lt;sup>d</sup> Type II hood required when more than one appliance is used.

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**806.1.1 Restricted occupancies.** Natural cut trees shall be prohibited in the following occupancies:

- 1. Group I; and
- 2. R-2 occupancies providing licensed care to clients in one of the categories listed in the International Building Code, section 310.1 licensed by Washington state.

**806.1.2 Support devices**. The support device that holds the tree in an upright position shall be of a type that is stable and that meets all of the following criteria:

- 1. The device shall hold the tree securely and be of adequate size to avoid tipping over of the tree.
- 2. The device shall be capable of containing a minimum supply of water in accordance with Table 806.1.2.
- 3. The water level, when full, shall cover the tree stem at least 2 inches (51 mm). The water level shall be maintained above the fresh cut and checked at least once daily.

TABLE 806.1.2
SUPPORT STAND WATER CAPACITY

Tree Stem Diameter (inches)	Minimum Support Stand Water Capacity (gallons)	Typical Daily Water Transpiration Amount (gallons)
Up to 4	1	½ to 1
4 to 6	1½	1¼ to 1½
7 to 8	2	1¾ to 2
9 to 12	3	21/4 to 3
13 and over	4	Over 3

**903.2.1.6 Nightclub.** An automatic sprinkler system shall be provided throughout Group A-2 nightclubs as defined in this code.

**903.2.3 Group E.** An automatic sprinkler system shall be provided for Group E occupancies.

#### **Exceptions:**

- Portable school classrooms with an occupant load of 50 or less calculated in accordance with Table 1004.1.2, provided that the aggregate area of any cluster of portable classrooms does not exceed 5,000 square feet (1465 m²); and clusters of portable school classrooms shall be separated as required by the building code.
- 2. Group E occupancies with an occupant load of 50 or less, calculated in accordance with Table 1004.1.2.

**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.

**Exception:** Group R-1 if all of the following conditions apply:

- 1. The Group R fire area is no more than 500 square feet and is used for recreational use only.
- 2. The Group R fire area is on only one story.
- 3. The Group R fire area does not include a basement.
- 4. The Group R fire area is no closer than 30 feet from another structure.
- Cooking is not allowed within the Group R fire area.
- 6. The Group R fire area has an occupant load of no more than 8.
- 7. A hand held (portable) fire extinguisher is in every Group R fire area.

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903.2.11.1.3 Basements. Where any portion of a basement is located more than 75 feet (22,860 mm) from openings required by Section 903.2.11.1, or where new walls, partitions or other similar obstructions are installed that increase the exit access travel distance to more than 75 feet, the basement shall be equipped throughout with an approved automatic sprinkler system.

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**907.2.9.1.1 Group R-2 boarding homes.** A manual fire alarm system shall be installed in Group R-2 occupancies where the building contains a boarding home licensed by the state of Washington.

**Exception:** In boarding homes licensed by the state of Washington, manual fire alarm boxes in resident sleeping areas shall not be required at exits if located at all constantly attended staff locations, provided such staff locations are visible, continuously accessible, located on each floor, and positioned so no portion of the story exceeds a horizontal travel distance of 200 feet to a manual fire alarm box.

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**908.7 Carbon monoxide alarms.** Group I or Group R occupancies shall be provided with single station carbon monoxide alarms installed outside of each separate sleeping area in the immediate vicinity of the bedrooms in dwelling units or sleeping units and on each level of the dwelling. The carbon monoxide alarms shall be listed as complying with UL 2034 and be installed and maintained in accordance with NFPA 720-2012 and the manufacturer's instructions.

# **Exceptions:**

- 1. For other than R-2 occupancies, the building does not contain a fuel-burning appliance, a fuel-burning fireplace, or an attached garage; or
- 2. Sleeping units or dwelling units in I and R-1 occupancies and R-2 college dormitories, hotel, and DSHS licensed boarding home and residential treatment facility occupancies which do not themselves contain a fuel-burning appliance, or a fuel-burning fireplace, or have an attached garage, need not be provided with carbon monoxide alarms provided that:
  - a. The sleeping unit or dwelling unit is not adjacent to any room which contains a fuelburning appliance, a fuel-burning fireplace, or an attached garage; and
  - The sleeping unit or dwelling unit is not connected by duct work or ventilation shafts with a supply or return register in the same room to any room containing a fuel-burning appliance, a fuel-burning fireplace, or an attached garage; and
  - c. The building is provided with a common area carbon monoxide detection system.
- 3. An open parking garage, as defined in Chapter 2 of the International Building Code, or enclosed parking garage ventilated in accordance with Section 404 of the International Mechanical Code shall not be considered an attached garage.
- **908.7.1** Carbon monoxide detection systems. Carbon monoxide detection systems, that include carbon monoxide detectors and audible notification appliances, installed and maintained in accordance with this section for carbon monoxide alarms and NFPA 720-2012 shall be permitted. The carbon monoxide detectors shall be listed as complying with UL 2075.

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### 909.21 Elevator hoistway pressurization alternative.

Where elevator hoistway pressurization is provided in lieu of required enclosed elevator lobbies, the pressurization system shall comply with Sections 909.21.1 through 909.21.13.

- 909.21.1 Pressurization requirements. Elevator hoistways shall be pressurized to maintain a minimum positive pressure of 0.10 inches of water (25 Pa) and a maximum positive pressure of 0.25 inches of water (67 Pa) with respect to adjacent occupied space on all floors. This pressure shall be measured at the midpoint of each hoistway door, with all elevator cars at the floor of recall and all hoistway doors on the floor of recall open and all other hoistway doors closed. The opening and closing of hoistway doors at each level must be demonstrated during this test. The supply air intake shall be from an outside uncontaminated source located a minimum distance of 20 feet (6096 mm) from any air exhaust system or outlet.
- **909.21.2 Rational analysis.** A rational analysis complying with Section 909.4 shall be submitted with the construction documents.
- **909.21.3 Ducts for system.** Any duct system that is part of the pressurization system shall be protected with the same fire-resistance rating as required for the elevator shaft enclosure.
- **909.21.4 Fan system.** The fan system provided for the pressurization system shall be as required by Sections 909.21.4.1 through 909.21.4.4.
  - **909.21.4.1 Fire resistance.** When located within the building, the fan system that provides the pressurization shall be protected with the same fire-resistance rating required for the elevator shaft enclosure.
  - **909.21.4.2 Smoke detection**. The fan system shall be equipped with a smoke detector that will automatically shut down the fan system when smoke is detected within the system.
  - **909.21.4.3 Separate systems.** A separate fan system shall be used for each elevator hoistway.
  - **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 registered design professional to meet the requirements of a designed pressurization system.
- **909.21.5 Standby power.** The pressurization system shall be provided with standby power from the same source as other required emergency systems for the building.
- **909.21.6 Activation of pressurization system.** The elevator pressurization system shall be activated upon activation of the building fire alarm system or upon activation of the elevator lobby smoke detectors.

- Where both a building fire alarm system and elevator lobby smoke detectors are present, each shall be independently capable of activating the pressurization system.
- **909.21.7 Special inspection.** Special inspection for performance shall be required in accordance with Section 909.18.8. System acceptance shall be in accordance with Section 909.19.
- **909.21.8 Marking and identification.** Detection and control systems shall be marked in accordance with Section 909.14.
- **909.21.9 Control diagrams.** Control diagrams shall be provided in accordance with Section 909.15.
- **909.21.10 Control panel.** A control panel complying with Section 909.16 shall be provided.
- **909.21.11 System response time.** Hoistway pressurization systems shall comply with the requirements for smoke control system response time in Section 909.17.
- **909.21.12 Hoistway venting.** Hoistway venting required by Section 3004 of the International Building Code need not be provided for pressurized elevator shafts.
- **909.21.13 Machine rooms.** Elevator machine rooms shall be pressurized in accordance with this section unless separated from the hoistway shaft by construction in accordance with Section 707 of the International Building Code.

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**915.5 Audibility.** Audible characteristics of the alert signal shall be in accordance with Section 7.4.1 of NFPA 72 throughout the area served by the alerting system.

**Exception:** Areas served by approved visual or textual notification, where the visible notification appliances are not also used as a fire alarm signal, are not required to be provided with audibility complying with Section 915.6.

**915.6 Visibility.** Visible and textual notification appliances shall be permitted in addition to alert signal audibility.

# SECTION 915 ALERTING SYSTEMS

**915.1 General.** An approved alerting system shall be provided in buildings and structures as required in Chapter 4 and this section, unless other requirements are provided by another section of this code.

**Exception**: Approved alerting systems in existing buildings, structures or occupancies.

**915.2 Power source.** Alerting systems shall be provided with power supplies in accordance with Section 4.4.1 of NFPA 72 and circuit disconnecting means identified as "emergency alerting system."

**Exception:** Systems which do not require electrical power to operate.

- **915.3 Duration of Operation.** The alerting system shall be capable of operating under nonalarm condition (quiescent load) for a minimum of 24 hours and then shall be capable of operating during an emergency condition for a period of 15 minutes at maximum connected load.
- **915.4 Combination system.** Alerting system components and equipment shall be allowed to be used for other purposes.
  - **915.4.1 System priority.** The alerting system use shall take precedence over any other use.
  - **915.4.2 Fire alarm system.** Fire alarm systems sharing components and equipment with alerting systems must be in accordance with Section 6.8.4 of NFPA 72.
    - **915.4.2.1 Signal priority.** Recorded or live alert signals generated by an alerting system that shares components with a fire alarm system shall, when actuated, take priority over fire alarm messages and signals.
    - **915.4.2.2 Temporary deactivation.** Should the fire alarm system be in the alarm mode when such an alerting system is actuated, it shall temporarily cause deactivation of all fire alarm-initiated audible messages or signals during the time period required to transmit the alert signal.
    - **915.4.2.3 Supervisory signal.** Deactivation of fire alarm audible and visual notification signals shall cause a supervisory signal for each notification zone affected in the fire alarm system.

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**1007.1** Accessible means of egress required. Accessible means of egress shall comply with this section. Accessible spaces shall be provided with not less than one accessible means of egress. Where more than one means of egress are required by Section 1015.1 or 1021.1 from any accessible space, each accessible portion of the space shall be served by not less than two accessible means of egress.

### **Exceptions**:

- 1. Accessible means of egress are not required in alterations to existing buildings.
- 2. One accessible means of egress is required from an accessible mezzanine level in accordance with Section 1007.3, 1007.4 or 1007.5.
- 3. In assembly areas with sloped or stepped aisles, one accessible means of egress is permitted where the common path of travel is accessible and meets the requirements in Section 1028.8.
- 4. In parking garages, accessible means of egress are not required to serve parking areas that do not contain accessible parking spaces.

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1007.8.1 System requirements. Two-way communication systems shall provide communication between each required location and the fire command center or a central control point location approved by the fire department. Where the central control point is not constantly attended, a two-way communication system shall have a timed automatic telephone dial-out capability to a monitoring location. The two-way communication system shall include both audible and visible signals. The two-way communication system shall have a battery backup or an approved alternate source of power that is capable of 90 minutes use upon failure of the normal power source.

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- **1008.1.9.3 Locks and latches.** Locks and latches shall be permitted to prevent operation of doors where any of the following exists:
- 1. Places of detention or restraint.
- 2. In buildings in occupancy Group A having an occupant load of 300 or less, Groups B, F, M and S, and in places of religious worship, the main exterior door or doors are permitted to be equipped with key-operated locking devices from the egress side provided:
  - 2.1 The locking device is readily distinguishable as locked:
  - 2.2 A readily visible sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED. The sign shall be in letters 1 inch (25 mm) high on a contrasting background; and
  - 2.3 The use of the key-operated locking device is revocable by the building official for due cause.
- 3. Where egress doors are used in pairs, approved automatic flush bolts shall be permitted to be used, provided that the door leaf having the automatic flush bolts has no doorknob or surface-mounted hardware.
- 4. Doors from individual dwelling or sleeping units of Group R occupancies having an occupant load of 10 or less are permitted to be equipped with a night latch, dead bolt, or security chain, provided such devices are openable from the inside without the use of a key or tool.
- 5. Fire doors after the minimum elevated temperature has disabled the unlatching mechanism in accordance with listed fire door test procedures.
- Approved, listed locks without delayed egress shall be permitted in Group R-2 boarding homes licensed by Washington state, provided that:
  - 6.1. The clinical needs of one or more patients require specialized security measures for their safety.
  - 6.2. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.
  - 6.3. The doors unlock upon loss of electrical power controlling the lock or lock mechanism.
  - 6.4. The lock shall be capable of being deactivated by a signal from a switch located in an approved location.
  - 6.5. There is a system, such as a keypad and code, in place that allows visitors, staff persons and appropriate residents to exit. Instructions for exiting shall be posted within six feet of the door.

- 4. A building occupant shall not be required to pass through more than one door equipped with a special egress lock before entering an exit.
- 5. The procedures for the operation(s) of the unlocking system shall be described and approved as part of the emergency planning and preparedness required by Chapter 4 of the International Fire Code.
- 6. There is a system, such as a keypad and code, in place that allows visitors, staff persons and appropriate residents to exit. Instructions for exiting shall be posted within six feet of the door.
- 7. Emergency lighting shall be provided at the door.

  Exception::Items 1, 2, 3, and 6 shall not apply to doors to areas where persons which because of clinical needs require restraint or containment as part of the function of a psychiatric treatment area provided that all clinical staff shall have the keys, codes or other means necessary to operate the locking devices.

#### 1008.1.9.6 Special locking arrangements in Group I-2.

Approved special egress locks shall be permitted in a Group I-2 Occupancy where the clinical needs of persons receiving care require such locking. Special egress locks shall be permitted in such occupancies where the building is 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 7.

- 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, a nursing station or other approved location.

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**1009.3 Exit access stairways.** Floor openings between stories created by exit access stairways shall be enclosed.

#### **Exceptions:**

- 1. In other than Group I-2 and I-3 occupancies, exit access stairways that serve, or atmospherically communicate between, only two stories, are not required to be enclosed. Such interconnected stories shall not be open to other stories.
- Exit access stairways serving and contained within a single residential dwelling unit or sleeping unit in Group R-1, R-2 or R-3 occupancies are not required to be enclosed.
- 3. In Group B or M occupancies, exit access stairways that are designed exclusively for circulation are not required to be enclosed provided that the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, the area of the floor opening between stories does not exceed twice the horizontal projected area of the exit access stairway, and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13.
- 4. In other than Group B and M occupancies, exit access stairways that are designed exclusively for

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circulation are not required to be enclosed provided that the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, the floor opening does not connect more than four stories, the area of the floor opening between stories does not exceed twice the horizontal projected area of the exit access stairway, and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13.

- Exit access stairways with an atrium complying with the provisions of Section 404 of the International Building Code are not required to be enclosed.
- 6. Exit access stairways and ramps in open parking garages that serve only the parking garage are not required to be enclosed.
- Stairways serving outdoor facilities where all
  portions of the means of egress are essentially
  open to the outside are not required to be
  enclosed.
- 8. Exit access stairways serving stages, platforms and technical production areas in accordance with Sections 410.6.2 and 410.6.3 of the International Building Code are not required to be enclosed.
- Stairways are permitted to be open between the balcony, gallery or press box and the main assembly floor in occupancies such as theaters, places of religious worship, auditoriums and sports facilities.
- In Group I-3 occupancies, exit access stairways constructed in accordance with Section 408.5 of the International Building Code, are not required to be enclosed.

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**1010.1 Scope.** The provisions of this section shall apply to ramps used as a component of a means of egress.

#### **Exceptions:**

1. Other than ramps that are part of the accessible routes providing access in accordance with Sections 1108.2 through 1108.2.4 and 1108.2.6,

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- ramped aisles within assembly rooms or spaces shall conform with the provisions in Section 1028.11.
- 2. Curb ramps shall comply with ICC A117.1.
- 3. Vehicle ramps in parking garages for pedestrian exit access shall not be required to comply with Sections 1010.4 through 1010.10 when they are not an accessible route serving accessible parking spaces or other required accessible elements.
- 4. In a parking garage where one accessible means of egress serving accessible parking spaces or other accessible elements is provided, a second accessible means of egress serving that area may include a vehicle ramp that does not comply with Sections 1010.5, 1010.6, and 1010.9. A landing complying with Sections 1010.7.1 and 1010.7.4 shall be provided at any change of direction in the accessible means of egress.

**1018.5** Air movement in corridors. Corridors shall not serve as supply, return, exhaust, relief or ventilation air ducts.

#### **Exceptions:**

- Use of a corridor as a source of makeup air for exhaust systems in rooms that open directly onto such corridors, including toilet rooms, bathrooms, dressing rooms, smoking lounges and janitor closets, shall be permitted, provided that each such corridor is directly supplied with outdoor air at a rate greater than the rate of makeup air taken from the corridor.
- 2. Where located within a dwelling unit, the use of corridors for conveying return air shall not be prohibited.
- 3. Where located within tenant spaces of one thousand square feet (93 m²) or less in area, utilization of corridors for conveying return air is permitted.
- Incidental air movement from pressurized rooms within health care facilities, provided that a corridor is not the primary source of supply or return to the room.
- 5. Where such air is part of an engineered smoke control system.
- 6. Air supplied to corridors serving residential occupancies shall not be considered as providing ventilation air to the dwelling units subject to the following:
  - 6.1 The air supplied to the corridor is one hundred percent outside air; and
  - 6.2 The units served by the corridor have conforming ventilation air independent of the air supplied to the corridor; and
  - 6.3 For other than high-rise buildings, the supply fan will automatically shut off upon activation of corridor smoke detectors which shall be spaced at no more than thirty feet (9,144 mm) on center along the corridor; or
  - 6.4 For high-rise buildings, corridor smoke detector activation will close required smoke/fire dampers at the supply inlet to the corridor at the floor receiving the alarm.

**1018.6 Corridor continuity.** Fire-resistance-rated corridors shall be continuous from the point of entry to an exit, and shall not be interrupted by intervening rooms.

#### **Exceptions:**

1. Foyers, lobbies or reception rooms constructed as required for corridors shall not be construed as intervening rooms.

- In Group R-2 boarding homes and residential treatment facilities licensed by Washington state, seating areas shall be allowed to be open to the corridor provided:
  - 2.1 The seating area is constructed as required for the corridor:
  - 2.2 The floor is separated into at least two compartments complying with Section 407.5 of the International Building Code;
  - 2.3 Each individual seating area does not exceed 150 square feet, excluding the corridor width;
  - 2.4 The combined total space of seating areas per compartment does not exceed 300 square feet, excluding the corridor width;
  - 2.5 Combustible furnishings located within the seating area shall be in accordance with the International Fire Code Section 805; and
  - 2.6 Emergency means of egress lighting is provided as required by Section 1006 to illuminate the area.

1021.3.1 Access to exits at adjacent levels. Access to exits at other levels shall be by stairways or ramps. Where access to exits occurs from adjacent building levels, the horizontal and vertical exit access travel distance to the closest exit shall not exceed that specified in Section 1016.1. The path of egress travel to an exit shall not pass through more than one adjacent story.

**Exception:** Landing platforms or roof areas for helistops that are less than 60 feet (18,288 mm) long, or less than 2,000 square feet (186 m<sup>2</sup>) in area, shall be permitted to access the second exit by a fire escape, alternating tread device or ladder leading to the story or level below.

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**1103.5.3 Nightclub.** An automatic sprinkler system shall be provided throughout Group A-2 nightclubs as defined in this code. No building shall be constructed for, used for, or converted to occupancy as a nightclub except in accordance with this section.

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**1103.9 Carbon monoxide alarms.** Existing Group I or Group R occupancies shall be provided with single station carbon monoxide alarms in accordance with Section 908.7. An inspection will occur when alterations, repairs or additions requiring a permit occur, or when one or more sleeping rooms are added or created. The carbon monoxide alarms shall be listed as complying with UL 2034 and be installed and maintained in accordance with NFPA 720-2012 and the manufacturer's instructions.

#### **Exceptions:**

- 1. For other than R-2 occupancies, if the building does not contain a fuel-burning appliance, a fuel-burning fireplace, or an attached garage.
- Work involving the exterior surfaces of dwellings, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck, or electrical permits.
- 3. Installation, alteration or repairs of noncombustion plumbing or mechanical systems.
- 4. Sleeping units or dwelling units in I and R-1 occupancies and R-2 college dormitories, hotel, and DSHS licensed boarding home and residential treatment facility occupancies which do not themselves contain a fuel-burning appliance, a fuel-burning fireplace, or have an attached garage, need not be provided with carbon monoxide alarms provided that:
  - 4.1 The sleeping units or dwelling unit is not adjacent to any room which contains a fuel-burning appliance, a fuel-burning fireplace, or an attached garage; and

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- 4.2 The sleeping units or dwelling unit is not connected by duct work or ventilation shafts with a supply or return register in the same room to any room containing a fuel-burning appliance, a fuel-burning fireplace, or to an attached garage; and
- 4.3 The building is provided with a common area carbon monoxide detection system.
- 5. An open parking garage, as defined in the International Building Code, or enclosed parking garage ventilated in accordance with Section 404 of the International Mechanical Code shall not be considered an attached garage.

**1104.1 General.** Means of egress in existing buildings shall comply with Section 1030 and 1104.2 through 4604.24.

**Exception:** Means of egress conforming to the requirements of the building code under which they were constructed and Section 1030 shall not be required to comply with 1104.2 through 1104.22 and 1104.24.

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**3601.1.2 Permits**. For permits to operate marine motor fuel-dispensing stations, application of flammable or combustible finishes, and hot works, see Section 105.6.

**3602.1 Definitions.** The following terms are defined in Chapter 2:

COVERED BOAT MOORAGE FLOAT GRAVITY-OPERATED-DROP-OUT-VENTS MARINA PIER VESSEL WHARF **3604.2 Standpipes.** Marinas shall be equipped throughout with Class I manual, dry standpipe systems in accordance with NFPA 303. Systems shall be provided with outlets located such that no point on the marina pier or float system exceeds 150 feet from a standpipe outlet.



**3604.3** Access and water supply. Piers and wharves shall be provided with fire apparatus access roads and water-supply systems with on-site fire hydrants when required and approved by the fire code official. At least one fire hydrant capable of providing the required fire flow shall be provided within an approved distance of standpipe supply connections.

**3604.4 Portable fire extinguishers.** One 4A40BC fire extinguisher shall be provided at each standpipe outlet. Additional fire extinguishers, suitable for the hazards involved, shall be provided and maintained in accordance with Section 906.

**3604.7 Smoke and heat vents.** Approved automatic smoke and heat vents shall be provided in covered boat moorage areas exceeding 2,500 sq. ft. (232 m<sup>2</sup>) in area, excluding roof overhangs.

**Exception:** Smoke and heat vents are not required in areas protected by automatic sprinklers.

**3604.7.1 Design and installation.** Where smoke and heat vents are required they shall be installed near the roof peak, evenly distributed and arranged so that at least one vent is over each covered berth. The effective vent area shall be calculated using a ratio of one square foot of vent to every fifteen square feet of covered berth area (1:15). Each vent shall provide a minimum opening size of 4 ft. x 4 ft.

**3604.7.1.1 Smoke and heat vents.** Smoke and heat vents shall operate automatically by actuation of a heat-responsive device rated at between 100°F (56°C) above ambient.

**Exception**: Gravity-operated drop out vents.

**3604.7.1.2 Gravity-operated drop out vents.** Gravity-operated drop out vents shall fully open within 5 minutes after the vent cavity is exposed to a simulated fire represented by a time-temperature gradient that reaches an air temperature of 500°F (260°C) within 5 minutes.

**3604.8 Draft curtains.** Draft curtains shall be provided in covered boat moorage areas exceeding 2,500 sq. ft. (232 m<sup>2</sup>) in area, excluding roof overhangs.

**Exception**: Draft curtains are not required in areas protected by automatic sprinklers.

**3604.8.1 Draft curtain construction.** Draft curtains shall be constructed of sheet metal, gypsum board or other approved materials that provide equivalent performance to resist the passage of smoke. Joints and connections shall be smoke tight.

**3604.8.2 Draft curtain location and depth.** The maximum area protected by draft curtains shall not exceed 2,000 sq. ft. (186 m $^2$ ) or two slips or berths, whichever is smaller. Draft curtains shall not extend past the piling line. Draft curtains shall have a minimum depth of 4 feet and shall not extend closer than 8 feet (2438 mm) to the walking surface of the pier.

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**5306.1 General.** Compressed gases at hospitals and similar facilities intended for inhalation or sedation including, but not limited to, analgesia systems for dentistry, podiatry, veterinary and similar uses shall comply with Sections 5306.2 through 5306.4 in addition to other requirements of this chapter.

**Exception:** All distribution piping, supply manifolds, connections, regulators, valves, alarms, sensors and associated equipment shall be in accordance with the Plumbing Code.

5306.4 Medical gas systems. The maintenance and testing of medical gas systems including, but not limited to, distribution piping, supply manifolds, connections, pressure regulators and relief devices and valves, shall
 comply with the maintenance and testing requirements of NFPA 99 and the general provisions of this chapter.

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**5601.1 Scope.** The provisions of this chapter shall govern the possession, manufacture, storage, handling, sale and use of explosives, explosive materials, and small arms ammunition. The manufacture, storage, handling, sale and use of fireworks shall be governed by Chapter 70.77 RCW and by Chapter 212-17 WAC and local ordinances consistent with Chapter 212-17 WAC.

#### **Exceptions:**

- The Armed Forces of the United States, Coast Guard or National Guard.
- 2. Explosives in forms prescribed by the official United States Pharmacopoeia.
- 3. The possession, storage and use of small arms ammunition when packaged in accordance with DOT packaging requirements.
- 4. The possession, storage and use of not more than 1 pound (0.454 kg) of commercially manufactured sporting black powder, 20 pounds (9 kg) of smokeless powder and 10,000 small arms primers for hand loading of small arms ammunition for personal consumption.
- 5. The use of explosive materials by federal, state and local regulatory, law enforcement and fire agencies acting in their official capacities.
- 6. Special industrial explosive devices in which the aggregate contain less than 50 pounds (23 kg) of explosive materials.
- 7. The possession, storage and use of blank industrial-power load cartridges when packaged in accordance with DOT packaging regulations.
- Transportation in accordance with DOT 49 CFR Parts 100-178.
- 9. Items preempted by federal regulations.

**5601.1.1 Explosive material standard.** In addition to the requirements of this chapter, NFPA 495 shall govern the manufacture, transportation, storage, sale, handling and use of explosive materials. See also Chapter 70.74 RCW and Chapter 296-52 WAC.

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**5704.2.11 Underground tanks.** Underground storage of flammable and combustible liquids in tanks shall comply with Section 5704.2 and Sections 5704.2.11.1 through 5704.2.11.5.2. Corrosion protection shall comply with WAC 173-360-305.

**5706.5.4.5** Commercial, industrial, governmental or manufacturing. Dispensing of Class II and III motor vehicle fuel from tank vehicles into the fuel tanks of motor vehicles located at commercial, industrial, governmental or manufacturing establishments is allowed where permitted, provided such dispensing operations are conducted in accordance with the following:

(THOSE ITEMS NOT NOTED HERE REMAIN UNCHANGED)

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(THOSE ITEMS NOT NOTED I	HERE REMAIN UNCHANGED)		
spill clean up suppli Department of Ecol Management Practi readily available for at all times and incl capable of absorbin diesel fuel, storm di nonwater absorbent minimum 10-foot-le 12-gallon (45.41 L)	les shall be equipped with the ies in accordance with the ogy's Source Control Best ces. Such supplies shall be redeployment by the operator ude nonwater absorbents g 15 gallons (56.76 L) of rain plug or cover kit, a containment boom of a long (3038 mm) length with a labsorbent capacity, a length with 5-gallon (19 L)		
(THOSE ITEMSS NOT NOTED	HERE REMAIN UNCHANGED)		
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**Section 6108.1 Scope.** Storage, handling and transportation of liquefied petroleum gas (LP-gas) and the installation of LP-gas equipment pertinent to systems for such uses shall comply with this chapter and NFPA 58. Properties of LP-gas shall be determined in accordance with Appendix B of NFPA 58.

**Exception:** The use and storage of listed propane fired barbeque grills on R-2 decks and balconies with an approved container not exceeding a water capacity of 20 pounds (9 kg) that maintain a minimum clearance of 18 inches on all sides, unless listed for lesser clearances.

#### NFPA - Continued

Add the following standard to the NFPA list:

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96-07

720-12	Standard for the Installation of Carbon Monoxide (CO) Warning Equipment in Dwelling Units

#### WAC 51-54A-4800

### Appendix K

# Washington State Amendments to the 2012 Wildland and Urban Interface Code

The 2012 Wildland and Urban Interface Code is considered a pre-approved local amendment when adopted with the following amendments.

**Appendices B and C are adopted** as part of the preapproved local amendment.

**K101.5** Additions or alterations. Additions or alterations may be made to any building or structure without requiring the existing building or structure to comply with all of the requirements of this code, provided the addition or alteration conforms to that required for a new building or structure.

**Exception**: Provisions of this code that specifically apply to existing conditions are retroactive. See Sections 402.3, 601.1 and Appendix A.

Additions or alterations shall not cause the existing building or structure to become unsafe. An unsafe condition shall be deemed to have been created if an addition or alteration will cause the existing building or structure to become structurally unsafe or overloaded; will not provide adequate access in compliance with the provisions of this code or will obstruct existing exits or access; will create a fire hazard; will reduce required fire resistance or will otherwise create conditions dangerous to human life.

**K108.3 Site plan.** In addition to the requirements for plans in the *International Building Code*, the code official may require site plans which include topography, width and percent of grade of access roads, landscape and vegetation details, locations of structures or building envelopes, existing or proposed overhead utilities, occupancy classification of buildings, types of ignition resistant construction of buildings, structures and their appendages, roof classification of buildings, and site water supply systems. The code official is authorized to waive or modify the requirement for a site plan.

**K108.4 Vegetation management plans.** When required by the code official or when utilized by the permit applicant pursuant to Section 502, vegetation management plans shall be prepared and shall be submitted to the code official for review and approval as part of the plans required for a permit. See Appendix B.

**K108.7 Vicinity plan.** When required by the code official, the requirements for site plans shall include details regarding the vicinity within 300 feet (91, 440 mm) of property lines, including other structures, slope, vegetation, fuel breaks, water supply systems and access roads.

**K402.1.1** Access. New subdivisions, as determined by this jurisdiction, shall be provided with fire apparatus access roads in accordance with the *International Fire Code*.

**K402.1.2 Water supply.** New subdivisions as determined by this jurisdiction shall be provided with water supply in accordance with the *International Fire Code*.

**K402.2 Individual structures.** Individual structures shall comply with Sections 402.2.1 and 402.2.2.

**K402.2.1 Access.** Individual structures hereafter constructed or relocated into or within wildland-urban interface areas shall be provided with fire apparatus access in accordance with the *International Fire Code* 

**402.2.2 Water supply.** Individual structures hereafter constructed or relocated into or within wildland-urban interface areas shall be provided with a conforming water supply in accordance with the *International Fire Code*.

#### **Exceptions**:

- 1. Structures constructed to meet the requirements for the class of ignition-resistant construction specified in Table 503.1 for a nonconforming water supply.
- Buildings containing only private garages, carports, sheds and agricultural buildings with a floor area of not more than 600 square feet (56 m<sup>2</sup>).

**K402.3 Existing conditions.** Existing address markers, roads and fire protection equipment shall be in accordance with the *International Fire Code*.

**K403 Access.** This section not adopted.

**K404 Water supply.** This section not adopted.

(Insert as Page 475a)

## TABLE K503.1 IGNITION-RESISTANT CONSTRUCTION<sup>a</sup>

	FIRE HAZARD SEVERITY							
	Moderate Hazard		High Hazard		Extreme Hazard			
DEFENSIBLE	Water Supply <sup>b</sup>		Water Supply <sup>b</sup>		Water Supply <sup>b</sup>			
SPACEC	Conforming	Nonconforming	Conforming	Nonconforming	Conforming	Nonconforming		
Nonconforming	IR 2	IR 1	IR 1	IR 1 N.C.	IR 1 N.C.	Not Permitted		
Conforming	IR 3	IR 2	IR 2	IR 1	IR 1	IR 1 N.C.		
1.5 x Conforming	Not Required	IR 3	IR 3	IR 2	IR 2	IR 1		

- a. Access shall be in accordance with Section 402
- b. Water supply shall be in accordance with Section 402.1
  - IR 1 = Ignition-resistant construction in accordance with Section 504
  - IR 2 = Ignition-resistant construction in accordance with Section 505
  - IR 3 = Ignition-resistant construction in accordance with Section 506
  - N.C. = Exterior walls shall have a fire-resistance rating of not less than 1 hour and the exterior surfaces of such walls shall be noncombustible. Usage of log wall construction is allowed.
- c. Conformance based on Section 603.

**←**