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.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-001, filed 2/1/13, effective 7/1/13.]

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.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-002, filed 2/1/13, effective 7/1/13.]


[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-003, filed 2/1/13, effective 7/1/13.]

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.

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 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.

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.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-008, filed 2/1/13, effective 7/1/13.]
WAC 51-54A-0101  Section 101—Scope and general requirements.

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.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0101, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0105  Permits.

SECTION 105 SCOPE AND GENERAL REQUIREMENTS

105.1.1 Permits required. Any property owner or authorized agent who intends to conduct an operation or business, or install or modify systems and equipment, which is regulated by this code, or to cause any such work to be done shall first make application to the fire code official and obtain the required permit.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0105, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0202  General definitions.

SECTION 202 GENERAL DEFINITIONS

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.

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.

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.

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

EXISTING. Buildings, facilities or conditions that are already in existence, constructed or officially authorized prior to the adoption of this code.

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.

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.

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.

OCCUPANCY CLASSIFICATION. For the purposes of this code, certain occupancies are defined as follows:

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-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.

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**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:**
1. 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.
2. 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 (nontransient) with more than 16 occupants
  - Congregate living facilities (nontransient) with more than 16 occupants
  - Convents
  - Dormitories
  - Fraternities and sororities
  - Hotels (nontransient)
  - Live/work units
  - Monasteries
  - Motels (nontransient)
  - 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 units.

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

### Recreational fires

- **Recreational fires shall not be conducted within 25 feet of a structure or combustible material.** Conditions which could cause a fire to spread within 25 feet of such structures or combustible material shall be minimized. Recreational fires shall not be conducted within 25 feet of a structure or combustible material. Conditions which could cause a fire to spread within 25 feet of such structures or combustible material shall be minimized.

**Boarding houses**

- **Boarding houses (nontransient) with 16 or fewer occupants.**
- **Boarding houses (transient) with 10 or fewer occupants.**

**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.

### 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.**

### 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.**

### 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.**

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0202, filed 2/1/13, effective 7/1/13.]

### WAC 51-54A-0307

**Open burning, recreational fires and portable outdoor fireplaces.**

#### 307.2.1 Authorization

- **Where required by state or local law or regulations, open burning shall only be permitted with prior approval from the state or local air and water quality management authority, provided that all conditions specified in the authorization are followed.** See also chapter 173-425 WAC.

#### 307.4.2 Recreational fires

- **Recreational fires shall not be conducted within 25 feet of a structure or combustible material.** Conditions which could cause a fire to spread within 25 feet of such structures or combustible material shall be minimized.
feet of a structure shall be eliminated prior to ignition. See also chapter 173-425 WAC.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0307, filed 2/1/13, effective 7/1/13.]

**WAC 51-54A-0308 Open flames.**

**308.1.4 Open-flame cooking devices.** This section is not adopted.

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

**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.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0308, filed 2/1/13, effective 7/1/13.]

**WAC 51-54A-0401 General.**

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

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0401, filed 2/1/13, effective 7/1/13.]

**WAC 51-54A-0402 Definitions.** The following terms are defined in Chapter 2:

ALARM SIGNAL

ALERT SIGNAL

ALERT SYSTEM

EMERGENCY DRILL

SHELTER-IN-PLACE

RECALL SIGNAL

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0402, filed 2/1/13, effective 7/1/13.]

**WAC 51-54A-0404 Fire safety and emergency plans.**

**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.
2. 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.
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.
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.
9. 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.

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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.
4.8. Portable fire extinguishers.
4.9. Occupant-use hose stations.
4.10. Fire alarm annunciators and controls.
5. A list of major fire hazards associated with the normal use and occupancy of the premises, including maintenance and housekeeping procedures.
6. Identification and assignment of personnel responsible for maintenance of systems and equipment installed to prevent or control fires.
7. 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.

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

EXCEPTION: Day cares 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.
2. 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.
4. 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.
8. 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.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0404, filed 2/1/13, effective 7/1/13.]
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.

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 405.7.2.

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 drills 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 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.

[Statutory Authority: RCW 19.27A.031 and 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0405, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0406 Employee training and response procedures.

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.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0406, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0408 Use and occupancy-related requirements.

408.10 Group R-4 occupancies. This section is not adopted.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0408, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0503 Fire apparatus access roads.

503.1 Where required. Fire apparatus access roads shall be provided and maintained in accordance with locally adopted street, road, and access standards.

503.1.1 Buildings and facilities, is not adopted.

503.1.2 Additional access, is not adopted.

503.1.3 High-piled storage, is not adopted.

503.2 Specifications. This section is not adopted.

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.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0503, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0507 Fire protection water supplies.

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.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0507, filed 2/1/13, effective 7/1/13.]

(12/2/13)
WAC 51-54A-0508 Fire command center.

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 712 of the International Building Code, or both.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0508, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0605 Electrical equipment, wiring and hazards.

605.11 Solar photovoltaic power systems. Installation, modification, or alteration of solar photovoltaic power systems shall comply with this section. Due to the emerging technologies in the solar photovoltaic industry, it is understood fire code officials may need to amend prescriptive requirements of this section to meet the requirements for firefighter access and product installations. Section 104.9 Alternative materials and methods of this code shall be considered when approving the installation of solar photovoltaic power systems. Solar photovoltaic power systems shall be installed in accordance with Sections 605.11.1 through 605.11.4, the International Building Code and NFPA 70.

EXCEPTION: Detached, nonhabitable Group U structures shall not be subject to the requirements of Sections 605.11.2 through 605.11.3.3.

605.11.2 Marking content. The marking shall contain the words "PHOTOVOLTAIC POWER SOURCE."

605.11.2 Locations of DC conductors. Conduit, wiring systems, and raceways for photovoltaic circuits shall be located as close as possible to the ridge or hip or valley and from the hip or valley as directly as possible to an outside wall to reduce trip hazards and maximize ventilation opportunities. Conduit runs between sub arrays and to DC combiner boxes shall be installed in a manner that minimizes the total amount of conduit on the roof by taking the shortest path from the array to the DC combiner box. The DC combiner boxes shall be located such that conduit runs are minimized in the pathways between arrays. DC wiring shall be installed in metallic conduit or raceways when located within enclosed spaces in a building.

605.11.3 Access and pathways. Roof access, pathways, and spacing requirements shall be provided in accordance with Sections 605.11.3.1 through 605.11.3.3.

EXCEPTIONS: 1. Residential structures shall be designed so that each photovoltaic array is no greater than 150 feet (45,720 mm) by 150 feet (45,720 mm) in either axis.
   2. Panels/modules shall be located up to the roof ridge where an alternative ventilation method approved by the fire code official has determined vertical ventilation techniques will not be employed.

605.11.3.2 Residential systems for one- and two-family dwellings. Access to residential systems for one- and two-family dwellings shall be provided in accordance with Sections 605.11.3.2.1 through 605.11.3.2.4.

605.11.3.3 Residential buildings with roof hips and valleys. Panels/modules installed on residential buildings with roof hips and valleys shall be located no closer than 18 inches (457 mm) to a hip or a valley where panels/modules are to be placed on both sides of a hip or valley. Where panels are to be located on only one side of a hip or valley, the panels shall be permitted to be placed directly adjacent to the hip or valley.

EXCEPTION: These requirements shall not apply to roofs with slopes of two units vertical in 12 units horizontal (2:12) or less.

605.11.3.4 Residential building smoke ventilation. Panels/modules installed on residential buildings shall be located no higher than 18 inches (457 mm) below the ridge in order to allow for fire department rooftop operations.

605.11.4 Ground-mounted photovoltaic arrays. Ground-mounted photovoltaic arrays shall comply with Sections 605.11 through 605.11.2 and this section. Setback requirements shall not apply to ground-mounted, free-standing photovoltaic arrays.

[Statutory Authority: Chapters 19.27A and 34.05 RCW. WSR 13-24-076, § 51-54A-0605, filed 12/2/13, effective 4/1/14. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0605, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0609 Commercial kitchen hoods.

[M] 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/m³ or less of grease when tested at an exhaust flow rate of 500 cfm (0.236 m³/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.

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### Table 609.2.1
Type of Hood Required for Domestic Cooking Appliances in the Following Spaces\(^a,b\)

<table>
<thead>
<tr>
<th>Type of Space</th>
<th>Type of Cooking</th>
<th>Type of Hood</th>
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</thead>
<tbody>
<tr>
<td>Church</td>
<td>1. Boiling, steaming and warming precooked food</td>
<td>Type II hood</td>
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<td></td>
<td>2. Roasting, pan frying and deep frying</td>
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<td>Type I hood</td>
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<td>Community or party room in apartment and condominium</td>
<td>1. Boiling, steaming and warming precooked food</td>
<td>Residential hood(^c) or Type II hood(^d)</td>
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<td></td>
<td></td>
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<tr>
<td>Day care</td>
<td>1. Boiling, steaming and warming precooked food</td>
<td>Residential hood(^c) or Type II hood(^d)</td>
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<tr>
<td></td>
<td>2. Roasting, pan frying and deep frying</td>
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<tr>
<td></td>
<td></td>
<td>Type I hood</td>
</tr>
<tr>
<td>Dormitory, boarding home, nursing home</td>
<td>1. Boiling, steaming and warming precooked food</td>
<td>Type II hood</td>
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<tr>
<td></td>
<td>2. Roasting, pan frying and deep frying</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Type I hood</td>
</tr>
<tr>
<td>Office lunch room</td>
<td>1. Boiling, steaming and warming precooked food</td>
<td>Residential hood(^c) or Type II hood(^d)</td>
</tr>
<tr>
<td></td>
<td>2. Roasting, pan frying and deep frying</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Type I hood</td>
</tr>
</tbody>
</table>

\(^a\) Commercial cooking appliances shall comply with Section 507.2 of the International Mechanical Code.

\(^b\) Requirements in this table apply to electric or gas fuel appliances only. Solid fuel appliances or charbroilers require Type I hoods.

\(^c\) Residential hood shall ventilate to the outside.

\(^d\) Type II hood required when more than one appliance is used.

### Table 806.1.2
Support Stand Water Capacity

<table>
<thead>
<tr>
<th>Tree Stem Diameter (inches)</th>
<th>Minimum Support Stand Water Capacity (gallons)</th>
<th>Typical Daily Water Transpiration Amount (gallons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 4</td>
<td>1</td>
<td>1/4 to 1</td>
</tr>
<tr>
<td>4 to 6</td>
<td>1 1/2</td>
<td>1 1/4 to 1 1/2</td>
</tr>
<tr>
<td>7 to 8</td>
<td>2</td>
<td>1 3/4 to 2</td>
</tr>
<tr>
<td>9 to 12</td>
<td>3</td>
<td>2 1/4 to 3</td>
</tr>
<tr>
<td>13 and over</td>
<td>4</td>
<td>Over 3</td>
</tr>
</tbody>
</table>

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0806, filed 2/1/13, effective 7/1/13.]

### 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.

### 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.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0806, filed 2/1/13, effective 7/1/13.]

### Reviser's note:
The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency.
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.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0903, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0907 Fire alarm and detection systems.

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.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0907, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0908 Emergency alarm systems.

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, DOC prisons and work releases 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 fuel-burning appliance, a fuel-burning fireplace, or an attached garage; and
   b. 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
3. The building is provided with a common area carbon monoxide detection system.
4. 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.

[Statutory Authority: Chapters 19.27, 19.27A, and 34.05 RCW. WSR 13-24-017, § 51-54A-0908, filed 11/21/13, effective 4/1/14. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-0908, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-0909 Smoke control systems.

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.
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.

Standby power. The pressurization system shall be provided with standby power from the same source as other required emergency systems for the building.

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.

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.

Marking and identification. Detection and control systems shall be marked in accordance with Section 909.14.

Control diagrams. Control diagrams shall be provided in accordance with Section 909.15.

Control panel. A control panel complying with Section 909.16 shall be provided.

System response time. Hoistway pressurization systems shall comply with the requirements for smoke control system response time in Section 909.17.

Hoistway venting. Hoistway venting required by Section 3004 of the International Building Code need not be provided for pressurized elevator shafts.

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.

WAC 51-54A-0915 Alerting systems.

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.

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."

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.

Combination system. Alerting system components and equipment shall be allowed to be used for other purposes.

System priority. The alerting system use shall take precedence over any other use.

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.

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.

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.

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.

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.

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

Accessible means of egress.

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.
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.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-1007, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-1008 Doors, gates and turnstiles.

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 door-knob 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 a tool.
5. Fire doors after the minimum elevated temperature detection system or automatic fire detection system.

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.
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.

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.
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.

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.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-1008, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-1009 Stairways and handrails.

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.
2. 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, and 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 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.
5. 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.
7. 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.
9. 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.
10. 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.

1009.18 Stairways in individual dwelling units. Stairs or ladders within an individual dwelling unit used for access to areas of 200 square feet (18.6 m²) or less, and not containing the primary bathroom or kitchen, are exempt from the requirements of Section 1009.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-1009, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-1010 Ramps.

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, 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.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-1010, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-1018 Corridors.

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

EXCEPTIONS:
1. 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.
4. 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:
   1. The air supplied to the corridor is one hundred percent outside air; and
   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 (9144 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.
2. 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 Section 805; and
   2.6. Emergency means of egress lighting is provided as required by Section 1006 to illuminate the area.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-1018, filed 2/1/13, effective 7/1/13.]
WAC 51-54A-1021  Number of exits and exit configurations.

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 m²) 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.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-1021, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-1103  Fire safety requirements for existing buildings.

1103.4.3 Nightclub. An automatic sprinkler system shall be provided throughout 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.

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.
2. 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, DOC prisons and work release 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
   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.

[Statutory Authority: Chapters 19.27, 19.27A, and 34.05 RCW. WSR 13-24-017, § 51-54A-1103, filed 11/21/13, effective 4/1/14. Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-1103, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-1104  Means of egress for existing buildings.

1104.1 General. Means of egress in existing buildings shall comply with Section 1030 and 1104.2 through 1104.24.

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.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-1104, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-3601  Marinas—Scope.

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.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-3601, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-3602  Definitions.

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

COVERED BOAT MOORAGE
FLOOR
GRAVITY-OPERATED DROP OUT VENTS
MARINA
PIER
VESSEL
WHARF

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-3602, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-3604  Fire protection equipment.

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 m²) 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 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 m²) 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 m²) 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.

WAC 51-54A-5306 Medical gas systems.

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 new 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.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-5306, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-5601 General.

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: 1. 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 which in 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.
8. Transportation in accordance with DOT 49 C.F.R. 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.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-5601, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-5704 Storage.

5704.2.11 Underground tanks. Underground storage of flammable and combustible liquids in tanks shall comply with Section 3404.2 and Sections 3404.2.11.1 through 3404.2.11.5.2. Corrosion protection shall comply with WAC 173-360-305.

[Ch. 51-54A WAC p. 14]
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.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-6108, filed 2/1/13, effective 7/1/13.]

WAC 51-54A-6108 Fire protection.

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.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-6108, filed 2/1/13, effective 7/1/13.]

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.

K402.2.1 Water supply. New subdivisions, as determined by this jurisdiction, shall be provided with water apparatus access roads in accordance with the International Fire Code.

K402.2.2 Water supply. Individual structures shall comply with Sections 402.2.1 and 402.2.2.
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 K503.1 for a nonconforming water supply.

2. Buildings containing only private garages, carports, sheds and agricultural buildings with a floor area of not more than 600 square feet (56 m²).

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

### Table K503.1
Ignition-Resistant Construction

<table>
<thead>
<tr>
<th>Defensible Space</th>
<th>Moderate Hazard</th>
<th>High Hazard</th>
<th>Extreme Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Water Supply&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Water Supply&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Water Supply&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Nonconforming</td>
<td>IR 2</td>
<td>IR 1</td>
<td>IR 1 N.C.</td>
</tr>
<tr>
<td>Conforming</td>
<td>IR 3</td>
<td>IR 2</td>
<td>IR 1</td>
</tr>
<tr>
<td>1.5 x Conforming</td>
<td>Not Required</td>
<td>IR 3</td>
<td>IR 2</td>
</tr>
</tbody>
</table>

<sup>a</sup>Access shall be in accordance with Section 402.

<sup>b</sup>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.

<sup>c</sup>Conformance based on Section 603.

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

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

APPENDIX B-VEGETATION MANAGEMENT PLAN - THIS APPENDIX IS ADOPTED.

APPENDIX C-FIRE DANGER RATING SYSTEM - THIS APPENDIX IS ADOPTED.

[Statutory Authority: RCW 19.27A.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 13-04-063, § 51-54A-8100, filed 2/1/13, effective 7/1/13.]