

ORIGINAL

CITY OF BELLEVUE, WASHINGTON
ORDINANCE NO. 6113

AN ORDINANCE amending the Bellevue City Code to adopt certain State Building Code updates and local amendments thereto; amending Chapter 23.05 relating to construction code administration; repealing Chapter 23.10 in its entirety and replacing it with a new Chapter 23.10 reflecting amendments to state building codes; repealing Chapter 23.12 in its entirety and replacing it with a new Chapter 23.12 reflecting amendments to state residential codes; amending Chapter 23.16 to reflect amendments to swimming pool enclosures; repealing Chapter 23.50 in its entirety and replacing it with a new Chapter 23.50 reflecting amendments to state mechanical and related codes; repealing Chapter 23.60 in its entirety and replacing it with a new Chapter 23.60 reflecting amendments to state plumbing and related codes, and establishing an effective date.

WHEREAS, RCW 19.27.031 expressly requires the City of Bellevue adopt state building, residential, mechanical, fire, plumbing and related uniform codes; and

WHEREAS, RCW 19.27.060 provides the City with authority to amend the codes enumerated in RCW 19.27.031 as they apply within the City's corporate boundaries, provided such modifications do not result in less than the minimum performance standards and objectives contained in the state building code;

WHEREAS, current provisions of the Bellevue City Code adopt and rely upon various state and national codes, which have been superseded by statewide amendments (2012 editions) which become effective July 1, 2013; and

WHEREAS, the 2012 amendments to the national codes necessitate corollary amendments to the Bellevue City Code; now therefore

THE CITY COUNCIL OF THE CITY OF BELLEVUE, WASHINGTON, DOES ORDAIN AS FOLLOWS:

Section 1. Chapters 23.05, 23.10, 23.12, 23.16, 23.50, and 23.60 of the Bellevue City Code, which are amended or adopted by this ordinance, shall become applicable on July 1, 2013.

Section 2. Section 23.05.090 of the Bellevue City Code is hereby amended to read as follows:

23.05.090 Permits required.

A. Technical Codes Other Than the Electrical Code – Required. Any person who intends to construct, enlarge, alter, repair, move, demolish, or change the occupancy of a building or structure, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by this chapter and the technical codes, or to cause any such work to be done, shall first make application to the building official and obtain the required permit.

B. Technical Codes Other than the Electrical Code – Work Exempt from Permit. Certain work is exempt from the permit requirements of this chapter and the technical codes. Exemptions from permit requirements of this chapter and the technical codes shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this chapter, the technical codes or any other laws or ordinances of the city. An exemption from the permit requirements of one technical code does not exempt work from the permit requirements of other technical codes or other laws or ordinances of the city. Permits shall not be required for the following:

1. Emergency Repairs. Where equipment replacements and equipment repairs must be performed in an emergency situation posing a significant and immediate risk to life and safety, or a significant and immediate risk of loss to property, the permit application shall be submitted within the next working business day to the building official.

2. Repairs. Application or notice to the building official is not required for ordinary repairs to structures. Such repairs shall not include the cutting away of any wall, partition or portion thereof, the removal or cutting of any structural beam or load-bearing support, or the removal or change of any required means of egress, or rearrangement of parts of a structure affecting the egress requirements; nor shall ordinary repairs include addition to, alteration of, replacement or relocation of any standpipe, water supply, sewer, drainage, drain leader, gas, soil, waste, vent or similar piping, electric wiring or mechanical or other work affecting public health or general safety.

3. The following work otherwise governed by Chapter 23.10 BCC:

a. One-story detached structures accessory to 1-family or 2-family residential (houses and duplexes), used as tool and storage sheds, tree-supported play structures, playhouses and similar uses, provided the floor area does not exceed 200 square feet (11.15 m²).

b. Fences not over eight feet (2,438 mm) high.

c. Oil derricks.

- d. Retaining walls which are not over four feet (1,219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding Class I, II or III-A liquids.
- e. Water tanks supported directly on grade if the capacity does not exceed 5,000 gallons (18,925 L) and the ratio of height to diameter or width does not exceed two to one.
- f. Sidewalks, decks and driveways not more than 30 inches (762 mm) above grade (or grade plane, as applicable) and not over any basement or story below and which are not part of an accessible route or means of egress.
- g. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
- h. Temporary motion picture, television and theater stage sets and scenery.
- i. Prefabricated swimming pools accessory to structures regulated by the IRC or accessory to Group R-3 and Group U occupancies regulated by the IBC, which are less than 24 inches (610 mm) deep, do not exceed 5,000 gallons (18, 925 L) and are installed entirely above ground.
- j. Shade cloth structures constructed for nursery or agricultural purposes and not including service systems.
- k. Swings, slides and other similar playground equipment.
- l. Window awnings supported by an exterior wall which do not project more than 54 inches (1,372 mm) from the exterior wall and do not require additional support of structures regulated by the IRC or of Group R-3 and Group U occupancies regulated by the IBC.
- m. Movable cases, counters and partitions not over five feet, nine inches (1,753 mm) in height.
- n. Work primarily within public right-of-way.
- o. Public utility towers and poles owned by public utilities. Note: Communication towers owned by private companies are not exempt.
- p. Replacement of nonstructural siding on IRC structures except for stucco, and brick or stone veneer greater than four feet above grade plane.

- q. In-kind (same size) window replacement for structures where no alteration of structural members is required.
- r. Single-story construction job shacks that are placed on a permitted job site during construction. Job shacks shall be removed upon final approval of construction, or may be required to be removed if the permit expires or is suspended or cancelled. A construction job shack is a portable structure for which the primary purpose is to house equipment and supplies, and which may serve as a temporary office during construction for the purposes of the construction activity.
- s. Replacement of residential and commercial roofing.
- t. Photovoltaic (PV) panels meeting all of the following criteria:
1. PV system is designed and proposed for a detached single family house.
 2. PV system is designed for the rooftop of a house in compliance with applicable codes.
 3. The mounting system is engineered and designed for PV.
 4. The rooftop is made from lightweight material such as shingles.
 5. PV system has an approved and issued electrical permit.
 6. To address uplift, panels are mounted no higher than 18" above the surface of the roofing to which they are affixed, and except for flat roofs, no portion of the system may exceed the highest point of the roof.
 7. Total dead load of panels, supports, mountings, raceways and all other appurtenances weigh no more than:
 - Three and one-half (3.5) pounds per square foot (PSF); or
 - Four and one-half (4.5) pounds per square foot for frameless panels on a roof with a slope of at least three (3) vertical in twelve (12) horizontal; or
 - Five (5.0) pounds per square foot for frameless panels on a roof with a slope of at least five (3) vertical in twelve (12) horizontal.

8. Supports for solar panels are installed to spread the dead load across as many roof-framing members as needed to ensure that at no point are loads caused in excess of fifty (50) pounds.

9. Attachment to the roof is specified by the mounting system manufacturer.

10. A method and type of weatherproofing roof penetrations is provided

11. The house is code compliant with setbacks and height, or the code allows expansion of nonconformity for solar panels.

12. The PV panels are mounted no higher than the roof ridge or apex of roof (applies only to sloped roofs).

u. Flag and light poles located on private property less than or equal to 20 feet in height, but not exempting permit requirement for any electrical work.

4. The following work otherwise governed by Chapter 23.50 BCC:

- a. Portable heating or cooking appliances.
- b. Portable ventilation equipment.
- c. Portable cooling unit.
- d. Steam, hot or chilled water piping within any heating or cooling equipment regulated by this chapter and the technical codes.
- e. The replacement of any minor part that does not alter the approval of equipment or an appliance or make such equipment or appliance unsafe.
- f. Portable evaporative cooler.
- g. Self-contained refrigeration system containing 10 pounds (4.54 kg) or less of refrigerant and actuated by motors of one horsepower (746 W) or less.
- h. Portable fuel cell appliances that are not connected to a fixed piping system and are not interconnected.

5. The following work otherwise governed by Chapter 23.60 BCC:

a. The stopping and/or repairing of leaks in drains, water, soil, waste or vent pipe; provided, however, that should any concealed trap, drain pipe, water, soil, waste or vent pipe become defective and it becomes necessary to remove and replace the same with new material, the same shall be considered as new work and a permit shall be procured and inspection made as provided in this chapter and the technical codes.

b. The clearing of stoppages.

c. Reinstallation or replacement of fixtures and or valves that have accessible connections to rough in plumbing, except that replacement of a water heater in any building or use, and reinstallation or replacement of any fixture or valve within a commercial kitchen, does require a plumbing permit.

C. The Electrical Code – Required. In accordance with Chapter 19.28 RCW, an electrical permit is required for the following installations:

1. The installation, alteration, repair, replacement, modification or maintenance of all electrical systems, wire and electrical equipment regardless of voltage.

2. The installation and/or alteration of low voltage systems defined as:

a. NEC, Class 1 power limited circuits at 30 volts maximum.

b. NEC, Class 2 circuits powered by a Class 2 power supply as defined in NEC 725.41(A).

c. NEC, Class 3 circuits powered by a Class 3 power supply as defined in NEC 725.41(A).

3. Telecommunications Systems.

a. All installations of telecommunications systems on the customer side of the network demarcation point for projects greater than 10 telecommunications outlets.

b. All backbone installations regardless of size and all telecommunications cable or equipment installations involving penetrations of fire barriers or passing through hazardous locations require permits and inspections.

c. The installation of greater than 10 outlets and the associated cables along any horizontal pathway from a telecommunications closet to work areas during any continuous 90-day period requires a permit and inspection.

d. In R1 and R2 occupancies as defined in the building code, permits and inspections are required for all backbone installations, all penetrations of fire resistive walls, ceilings and floors; and installations of greater than 10 outlets in common areas.

e. Definitions of telecommunications technical terms will come from Chapter 19.28 RCW, the currently adopted WAC rules, EIA/TIA standards, and the National Electrical Code.

D. The Electrical Code – Work Exempt from Permit. Certain work is exempt from the permit requirements of this chapter and the electrical code. Exemptions from permit requirements of this chapter and the electrical code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this chapter, the technical codes or any other laws or ordinances of the city. An exemption from the permit requirements of one technical code does not exempt work from the permit requirements of other technical codes or other laws or ordinances of the city. Permits shall not be required for the following:

1. Emergency Repairs. Where equipment replacements and equipment repairs must be performed in an emergency situation posing a significant and immediate risk to life and safety, or a significant and immediate risk of loss to property, the permit application shall be submitted within the next working business day to the building official.

2. An electrical permit shall not be required for the following:

a. Portable motors or other portable appliances energized by means of a cord or cable having an attachment plug end to be connected to an approved receptacle when that cord or cable is permitted by the National Electrical Code.

b. Repair or replacement of fixed motors, transformers or fixed approved appliances or devices rated 50 amperes or less which are like-in-kind in the same location.

c. Temporary decorative lighting, when used for a period not to exceed 45 days and removed at the conclusion of the 45-day period.

d. Repair or replacement of current-carrying parts of any switch, conductor or control device which are like-in-kind in the same location.

e. Repair or replacement of attachment plug(s) and associated receptacle(s) rated 50 amperes or less which are like-in-kind in the same location.

f. Repair or replacement of any over current device which is like-in-kind in the same location.

- g. Repair or replacement of electrodes or transformers of the same size and capacity for signs or gas tube systems.
- h. Removal of electrical wiring.
- i. Telecommunications Systems.
 - i. Telecommunications outlet installations within the individual dwelling units of group R1 and R2 occupancies as defined by the building code;
 - ii. All telecommunications installations within R3 and R4 occupancies as defined in the building code;
 - iii. The installation or replacement of cord and plug connected telecommunications equipment or for patch cord and jumper cross-connected equipment.
- j. Low voltage installation wiring that is not part of a fire/smoke alarm system, where installed within a structure regulated by the International Residential Code, provided the power is supplied by a listed Class 2 power supply,
- k. The installation, alteration or repair of electrical wiring, apparatus or equipment for the generation, transmission, distribution or metering of electrical energy or in the operation of signals for the transmission of intelligence by a public or private utility in the exercise of its function as a serving utility.
- l. Induction detection loops described in WAC 296-46B-300(2) and used to control gate access devices.
- m. Heat cable repair.
- n. Travel trailers.
- o. Unless specifically noted, the exemptions listed do not include: the replacement of an equipment unit, assembly, or enclosure that contains an exempted component or combination of components (i.e., electrical furnace/heat pumps, industrial milling machine, etc.).

Section 3. Section 23.05.100 of the Bellevue City Code is hereby amended to read as follows:

23.05.100. Permit issuance.

.....

B. To Whom Permit Issued. Permits shall be issued only to a person, firm or corporation who demonstrates to the satisfaction of the building official that he/she is properly licensed, or exempt, as required by Chapter 18.27 RCW, or for electrical

contractors, as required by Chapter 19.28 RCW, now or as hereafter amended, or to a person doing work at his/her own residence or place of business or other property owned by him/her; provided further, no such person, firm or corporation shall employ any unlicensed person, firm or corporation to perform the work authorized by the permit.

....

Section 4. Section 23.05.105.A of the Bellevue City Code is hereby amended to read as follows:

23.05.105.A Submittal documents.

1. General. Construction documents, special inspection and structural observation programs, and other data and information as required by the submittal requirements established by the city for each permit shall be submitted in one or more sets with each application for a permit. The construction documents shall be prepared by a registered design professional where required by the state of Washington. Where the building official, in his/her discretion, deems necessary, he/she may require additional construction documents for any application, which may be required to be prepared by a registered design professional.

Exception: The building official is authorized to waive the submission of construction documents and other data if it is found that the nature of the work applied for is such that review of construction documents is not necessary to obtain compliance with this chapter or the technical codes.

2. Electrical Engineer. Electrical plans for the following installations shall be prepared by, or under the direction of, a consulting electrical engineer registered under Chapter 18.43 RCW and Chapters 246-320, 388-97, and 392-344 WAC. All electrical plans must bear the engineer's stamp and signature.

- a. All educational facilities, hospitals and nursing homes;
- b. All services or feeders rated 1,600 amperes or larger;
- c. All installations identified in the National Electrical Code requiring engineering supervision;
- d. As required by the building official for installations which by their nature are complex, hazardous or pose unique design problems.

....

Section 5. Section 23.05.130.C.7 of the Bellevue City Code is hereby amended to read as follows:

23.05.130.C.7 IMC/UPC/GAS/NEC Rough-in Inspection.

....

7. IMC/UPC/GAS/NEC Rough-in Inspection. Rough-in mechanical, gas piping, plumbing and electrical shall be inspected when the rough-in work is complete and, if required, under test. No connections to primary utilities shall be made until the rough-in work is inspected and approved. Electrical rough-in inspection shall be made after the roof, framing, fireblocking and bracing are in place and all wiring and other components to be concealed are complete, and prior to the installation of wall or ceiling membranes. All required equipment grounding conductors installed in concealed cable or flexible conduit systems must be completely installed and made up at the time of the rough-in cover inspection.

Exception: Ground-source heat pump loop systems tested in accordance with Section 1208.1.1 shall be permitted to be backfilled prior to inspection.

....

Section 6. Chapter 23.10 of the Bellevue City Code is hereby repealed in its entirety and replaced with a new Chapter 23.10 to read as follows:

**Chapter 23.10
BUILDING CODE**

Sections:

- 23.10.010 Amendments and adoptions.
- 23.10.015 Amendments, additions, or exceptions to the 2012 International Building Code.
- 23.10.403 International Building Code Table 403(1) added – Standby (legally required) and emergency power.
- 23.10.403.1 International Building Code Section 403.1 amended - Applicability.
- 23.10.403.2.1.1 International Building Code Section 403.2.1.1 amended – Type of construction.
- 23.10.403.4.7 International Building Code Section 403.4.7 amended – Standby power.
- 23.10.403.4.7.1 International Building Code Section 403.4.7.1 amended to add new subsection 403.4.7.1.1 – Penetrations.
- 23.10.403.4.7.2 International Building Code Section 403.4.7.2 amended – Standby power loads.
- 23.10.403.4.8 International Building Code Section 403.4.8 amended – Emergency power loads.

- 23.10.403.4.8.1.1 International Building Code Section 403.4.8.1.1 added – Penetrations.
- 23.10.403.4.8.2 International Building Code Section 403.4.8.2 amended – Emergency power loads.
- 23.10.403.5 International Building Code Section 403.5 amended – Means of egress and evacuation.
- 23.10.403.7 International Building Code Section 403.7 added – Smoke control.
- 23.10.405.1 International Building Code Section 405.1 amended – General.
- 23.10.405.8 International Building Code Section 405.8 amended – Standby power.
- 23.10.405.9 International Building Code Section 405.9 amended – Emergency power.
- 23.10.713.14.1 International Building Code Section 713.14.1 amended – Elevator lobby.
- 23.10.902.1 International Building Code Section 902.1 amended – Definitions.
- 23.10.903.2 International Building Code Section 903.2 amended – Where required.
- 23.10.903.2.11 International Building Code Section 903.2.11 amended – All occupancies.
- 23.10.903.3.1.1.1 International Building Code Section 903.3.1.1.1 amended – Exempt locations.
- 23.10.903.3.1.1.2 International Building Code Section 903.3.1.1.2 added – High rise building sprinkler system design.
- 23.10.903.3.1.1.3 International Building Code Section 903.3.1.1.3 added – Seismic coefficient.
- 23.10.903.3.3 International Building Code Section 903.3.3 amended – Obstructed locations.
- 23.10.903.3.5.2 International Building Code Section 903.3.5.2 amended – Secondary water supply.
- 23.10.903.4.2 International Building Code Section 903.4.2 amended – Alarms.
- 23.10.903.4.3 International Building Code Section 903.4.3 amended – Floor control valves.
- 23.10.905.3 International Building Code Section 905.3 amended – Required installations.
- 23.10.905.4 International Building Code Section 905.4 amended – Location of Class I standpipe hose connections.
- 23.10.905.8 International Building Code Section 905.8 amended – Dry standpipes.
- 23.10.907.1 International Building Code Section 907.1 amended – General.
- 23.10.907.2.7.1 International Building Code Section 907.2.7.1 deleted – Occupant notification.
- 23.10.907.2.13.1 International Building Code Section 907.2.13.1 amended – Area smoke detection.
- 23.10.907.2.13.2 International Building Code Section 907.2.13.2 amended – Fire department communication system.

- 23.10.907.2.18.1 International Building Code Section 907.2.18.1 amended – Smoke detectors.
- 23.10.907.5 International Building Code Section 907.5 amended – Occupant notification system.
- 23.10.907.5.2.1.1 International Building Code Section 907.5.2.1.1 amended – Average sound pressure.
- 23.10.907.5.2.2 International Building Code Section 907.5.2.2 amended – Emergency voice/alarm communication systems.
- 23.10.907.5.2.3 International Building Code Section 907.5.2.3 amended – Visible alarms.
- 23.10.907.6.3.1 International Building Code Section 907.6.3.1 amended – Annunciator panel.
- 23.10.909.1 International Building Code Section 909.1 amended – Scope and purpose.
- 23.10.909.4.6 International Building Code Section 909.4.6 amended – Duration of operation.
- 23.10.909.10.2 International Building Code Section 909.10.2 amended – Ducts, including shafts acting as ducts.
- 23.10.909.10.3 International Building Code Section 909.10.3 amended – Equipment, inlets and outlets.
- 23.10.909.11 International Building Code Section 909.11 amended – Power systems.
- 23.10.909.17 International Building Code Section 909.17 amended – System response time.
- 23.10.909.18.8.3.2 International Building Code Section 909.18.8.3.2 added – Certificate of compliance.
- 23.10.909.20 International Building Code Section 909.20 amended – Smokeproof enclosures.
- 23.10.909.20.5 International Building Code Section 909.20.5 amended – Stair pressurization alternative.
- 23.10.909.20.6.3 International Building Code Section 909.20.6.3 amended – Acceptance and testing.
- 23.10.909.21.1 International Building Code Section 909.21.2.1 amended – Pressurization requirements.
- 23.10.909.21.3 International Building Code Section 909.21.2.3 amended – Ducts for system.
- 23.10.909.21.4.4 International Building Code Section 909.21.2.4.4 amended – Fan capacity.
- 23.10.909.21.5 International Building Code Section 909.21.5 amended – Standby power.
- 23.10.911.1.2 International Building Code Section 911.2 amended – Separation and penetrations.
- 23.10.912.4 International Building Code Section 912.4 amended – Signs.
- 23.10.913.2 International Building Code Section 913.2 amended – Protection against interruption of service.

- 23.10.1006.3 International Building Code Section 1006.3 amended – Emergency power for illumination.
- 23.10.1007.4 International Building Code Section 1007.4 amended – Elevators.
- 23.10.1009.16.1 International Building Code Section 1009.16.1 amended - Roof access.
- 23.10.1011.5.3 International Building Code Section 1011.5.3 amended – Power source.
- 23.10.1612.3 International Building Code Section 1612.3 amended – Establishment of flood hazard areas.
- 23.10.1612.4 International Building Code Section 1612.4 amended – Design and construction.
- 23.10.1613.1 International Building Code Section 1613.1 amended – Scope.
- 23.10.1704.15 International Building Code Section 1704.14 amended – Exterior insulation and finish systems (EIFS).
- 23.10.1705.16 International Building Code Section 1705.16 deleted – Fire-resistant penetrations and joints.
- 23.10.3002.4 International Building Code Section 3002.4 amended – Elevator car to accommodate ambulance stretcher.
- 23.10.3007.1 International Building Code Section 3007.1 Amended – General.
- 23.10.3007.2 International Building Code Section 3007.2 Amended – Phase I Emergency recall operation.
- 23.10.3008.7.6.1 International Building Code Section 3008.7.6.1 added – Lobby status indicator.
- 23.10.3304.1.5 International Building Code Section 3304.1.5 added – Excavation and fill.
- 23.10.3306.1 International Building Code Table 3306.1 amended – Protection of pedestrians.
- 23.10.3306.2 International Building Code Section 3306.2 amended – Walkways.

23.10.010 Amendments and adoptions.

The following codes, all as amended, added to, or excepted in this chapter, together with all amendments and additions provided in this title, are adopted and shall be applicable within the city:

A. International Building Code.

1. Code Adoption. The 2012 Edition of the International Building Code published by the International Code Council, as adopted and amended by the State Building Code Council in Chapter 51-50 WAC, excluding Chapter 1, "Administration," is adopted and shall be applicable within the city, as amended, added to and excepted in this chapter. Those sections of the 2012 Edition of the International Building Code that are not being adopted by the city (except Chapter 1 referenced above) are listed in consequential order with the city's local amendments. The 2012 International Existing Building

Code is included in the adoption of this code in Section 3401 and amended in WAC 51-50-480000. The provisions of the International Existing Building Code may be applied to the repair, alteration, change of occupancy, addition and relocation of existing buildings.

2. Scope. The provisions of the International Building Code as adopted, amended, added to, or excepted in this chapter shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures.

Exception: Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade plane in height with a separate means of egress and their accessory structures shall comply with the International Residential Code.

B. International Energy Conservation Code.

1. Code Adoption. The International Energy Conservation Code, as provided in RCW 19.27A.020 and as adopted by the State Building Code Council in Chapter 51-11C WAC and Chapter 51-11R WAC, is adopted and shall be applicable within the city, as amended, added to, or excepted in this chapter.

C. Abatement of Dangerous Buildings Code.

1. Code Adoption. The 1997 Edition of the Uniform Code for the Abatement of Dangerous Buildings published by the International Council of Building Officials, except for Section 205 and Chapters 5, 6, 7, 8, and 9, is adopted and shall be applicable within the city, as amended, added to, or excepted in this chapter.

2. Scope. The 1997 Edition of the Uniform Code for the Abatement of Dangerous Buildings, as adopted, amended, added to, or excepted in this chapter, provides equitable remedies consistent with other laws for the repair, vacation or demolition of dangerous buildings.

D. Uniform Housing Code.

1. Code Adoption. The 1997 Edition of the Uniform Housing Code as published by the International Conference of Building Officials, except Sections 104, 201.1, 201.2, 203, 302, and Chapters 12, 13, 14, 15 and 16, is adopted and shall be applicable within the city, as amended, added to, or excepted in this chapter.

2. Scope. The 1997 Edition of the Uniform Housing Code, as adopted, amended, added to, or excepted in this chapter, provides requirements affecting conservation and rehabilitation of housing.

E. Adoption by Reference. All codes, standards, rules and regulations adopted by this section are adopted by reference thereto and by this reference fully incorporated herein. Not less than one copy of each code, standard, rule or regulation, in the form in which it was adopted, shall be filed in the city clerk's office and be available for use and examination by the public.

23.10.015 Amendments, additions, or exceptions to the 2012 International Building Code.

Pursuant to RCW 19.27.060, the following contains amendments, additions, or exceptions to the International Building Code applicable and enforceable within the city.

23.10.403 International Building Code Table 403(1) added – Standby (legally required) and emergency power. Section 403 of the International Building Code is hereby amended to add Table 403(1) as follows:

**TABLE 403(1)
STANDBY (LEGALLY REQUIRED) AND EMERGENCY POWER**

Type of Equipment	Maximum Time to Energize Loads	Minimum Run Time (Duration)	IBC Section	IFC or NFPA Section
Emergency Power Systems¹				
Exit signs	10 seconds	2 hours	1011.6.3	604.2.14 High rises 604.2.15 Underground buildings 1011.6.3 Exit signs 2403.12.6.1 Temporary tents, canopies,

				2403.12.6.1 Temporary tents, canopies, membrane structures NFPA 70
Exit illumination	10 seconds	2 hours	1006.3	1006.3 604.2.14 High rises 604.2.15 Underground buildings
Any emergency voice/alarm communication including area of refuge communication systems (barrier-free and horizontal exits)	NFPA 72	24 hours (battery) 4 hours (generator)	402.7.3, 402.7.4, and 907.5.2.2 Covered mall buildings 403.4.9 and 907.5.2.2 High rises 405.8, 405.9, and 907.5.2.2 Underground buildings 907.2.1, and 907.5.2.2 Assembly occupancies	604.2.13 Covered mall building 604.2.14 High rises 604.2.15 Underground buildings 907.2.1.1 Assembly occupancies NFPA 72
Fire detection and fire alarms	NFPA 72	24 hours (battery) 4 hours (generator)	403.4.9 High rises 405.9 Underground buildings 909.20.6.2 Smokeproof	604.2.14 High rises 604.2.15 Underground buildings 907.2.11

			enclosures 907	NFPA 72
Smoke control systems in high-rise buildings, underground buildings and covered mall buildings including energy management systems if used for smoke control or smoke removal	60 seconds	2 hours	403.4 High rises 404.7 Atriums 405.9 Underground buildings 909.11 Smoke control	909.11
Fire pumps in high-rise buildings and underground buildings	10 seconds	8 hours (NFPA 20)	403.4.9 High rises 405.9 Underground buildings	604.2.14 High rises and NFPA 20 604.2.15 Underground buildings 913.2 All Fire Pumps
Smokeproof enclosures and elevator shaft pressurization	60 seconds for pressurization	4 hours	403.4.8 High rises 909 and 909.20.6.2	
Any shaft exhaust fans required to run continuously in lieu of dampers	60 seconds	4 hours	717.5.3	
Fire service or occupant evacuation elevator car operation in high-rise and underground buildings (including control system, motor controller, operation control, signal equipment,	60 seconds	4 hours	3003, 3007, and 3008	604.2.14 High rises 604.2.15 Underground buildings

machine room cooling/heating, etc.)				
Elevator car lighting and communications in high-rise and underground buildings	10 seconds	4 hours	3003, 3007, and 3008	604.2.14 High rises 604.2.15 Underground buildings 604.2.18 Elevators
Lights, heating, and cooling for building fire command center and mechanical equipment rooms serving the fire command center	60 seconds	24 hours		604.2.14 High rises
Power (other than lights, heating and cooling) for building fire command center	60 seconds	4 hours		
Mechanical and electrical systems required by IFC 27 (hazardous materials including UPS rooms)	60 seconds	4 hours		Chapter 27
Legally Required Standby¹				
Exhaust fans for any loading dock located interior to a building	60 seconds	4 hours		
Transformer vault ventilation equipment	60 seconds	4 hours		
Heat tape for sprinkler lines and heating in sprinkler riser rooms	60 seconds	24 hours		

Fuel pump system for any legally required system	60 seconds	4 hours		
--	------------	---------	--	--

TABLE 403(1) FOOTNOTES:

1. The fuel pump and associated systems for the emergency or legally required generator shall be provided with power from the generator to maintain fuel supply.

23.10.403.1 International Building Code Section 403.1 amended – Applicability
International Building Code Section 403.1 is hereby amended to read as follows:

High-rise buildings shall comply with Sections 403.2 through 403.7 and Table 403(1).

Exceptions: The provisions of Sections 403.2 through 403.7 and Table 403(1) shall not apply to the following buildings and structures:

1. Airport traffic control towers in accordance with Section 412.3.
2. Open parking garages in accordance with Section 406.5.
3. Buildings with a Group A-5 occupancy in accordance with Section 303.6.
4. Special industrial occupancies in accordance with Section 503.1.1.
5. Buildings with a Group H-1, H-2 or H-3 occupancy in accordance with Section 415.

23.10.403.2.1.1 International Building Code Section 403.2.1.1 amended – Type of construction.

International Building Code Section 403.2.1.1 is hereby amended to read as follows:

403.2.1.1 Type of construction. The following reductions in the minimum fire-resistance rating of the building elements in Table 601 shall be permitted as follows:

1. For buildings not greater than 420 feet (128 m) in building height, the fire-resistance rating of the building elements in Type IA construction, other than structural frame and bearing walls, shall be permitted to be reduced to the minimum fire-resistance ratings for the building elements in Type IB.
2. In other than Groups F-1, M and S-1 occupancies, the fire-resistance rating of the building elements in Type IB construction, other than

structural frame and bearing walls, shall be permitted to be reduced to the fire-resistance ratings in Type IIA.

3. The building height and building area limitations of a building containing building elements with reduced fire-resistance ratings shall be permitted to be the same as the building without such reductions.

23.10.403.3.2 International Building Code Section 403.3.2 deleted – Water supply to required fire pumps.

International Building Code Section 403.3.2 is hereby deleted.

23.10.403.4.8 International Building Code Section 403.4.8 amended – Standby power.

International Building Code Section 403.4.8 is hereby amended to read as follows:

403.4.8 Standby power. A standby power system complying with Table 403(1), and NFPA 70 (National Electrical Code) Article 701 Legally Required Standby Power, shall be provided.

403.4.8.1 Special requirements for standby power systems. If the standby system is a generator set inside a building, the system shall be located in a separate room enclosed with 2-hour fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both, and shall be in a separate room from the normal power source including transformers and distribution equipment. Power distribution from the emergency source to the emergency transfer switch shall be by an independent route from the normal power source. System supervision with manual start and transfer features shall be provided at the fire command center. Standby power shall be provided for elevators in accordance with Section 3003. Fuel-fired standby power generator sets and associated fuel storage, including optional landlord- or tenant-owned generator sets, located more than 75 feet above the lowest level of Fire Department vehicle access, require the approval of the fire code official.

23.10.403.4.8.1.1 International Building Code Section 403.4.8.1.1 added – Penetrations.

International Building Code Section 403.4.8.1 is hereby amended to add a new subsection 403.4.8.1.1 as follows:

403.4.8.1.1 Penetrations. Penetrations into and openings through a room containing a standby power system are prohibited except for required exit doors, equipment and ductwork necessary for heating, cooling or ventilation, sprinkler branch line piping, or electrical raceway serving the

standby power system or being served by the standby power system. Such penetrations shall be protected in accordance with Section 713.
Exception: Metallic piping with no joints or openings where it passes through the standby power system room.

23.10.403.4.8.2 International Building Code Section 403.4.8.2 amended – Standby power loads.

International Building Code Section 403.4.8.2 is hereby amended to read as follows:

403.4.8.2 Standby power loads. Standby power loads shall be classified in accordance with Table 403(1).

23.10.403.4.9 International Building Code Section 403.4.9 amended – Emergency power systems.

International Building Code Section 403.4.9 is hereby amended to read as follows:

403.4.9 Emergency power systems. An emergency power system complying with Table 403(1), and NFPA 70 (National Electrical Code) Article 700 Emergency Standby Power except as designated in Table 403(1), shall be provided. Fire pumps shall comply with NFPA 20 and NFPA 70 Article 695.

403.4.9.1 Special requirements for emergency power systems. If the emergency power system is a generator set inside a building, the system shall be located in a separate room enclosed with 2-hour fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both, and shall be in a separate room from the normal power source including transformers and distribution equipment. Power distribution from the emergency source to the emergency transfer switch shall be by an independent route from the normal power source. System supervision with manual start and transfer features shall be provided at the fire command center.

Fuel-fired emergency generator sets and associated fuel storage, including optional landlord- or tenant-owned generator sets, located more than 75 feet above the lowest level of Fire Department vehicle access, require the approval of the fire code official.

403.4.9.2 Emergency power loads. Emergency power loads shall be classified in accordance with Table 403(1).

23.10.403.5 International Building Code Section 403.5 amended – Means of egress and evacuation.

International Building Code Section 403.5 is hereby amended to read as follows:

403.5 Means of egress and evacuation. The means of egress in high-rise buildings shall comply with Sections 403.5.1 through 403.5.6, and in addition to these requirements, shall comply with Bellevue City Code 23.11.907.5.2.2.6, which requires either Phased Evacuation, an additional stair, or occupant evacuation elevators, to facilitate simultaneous building evacuation and firefighter response into the building.

403.5.1 Remoteness of interior exit stairways. Required interior exit stairways shall be separated by a distance not less than 30 feet (9144 mm) or not less than one-fourth of the length of the maximum overall diagonal dimension of the building or area to be served, whichever is less. The distance shall be measured in a straight line between the nearest points of the interior exit stairways. In buildings with three or more interior exit stairways, no fewer than two of the interior exit stairways shall comply with this section. Interlocking or scissor stairs shall be counted as one interior exit stairway.

403.5.2 Additional exit stairway. For buildings other than Group R-2 that are more than 420 feet (128 000 mm) in building height, one additional exit stairway meeting the requirements of Sections 1009 and 1022 shall be provided in addition to the minimum number of exits required by Section 1021.1. The total width of any combination of remaining exit stairways with one exit stairway removed shall be not less than the total width required by Section 1005.1. Scissor stairs shall not be considered the additional exit stairway required by this section.

Exception: An additional exit stairway shall not be required to be installed in buildings having elevators used for occupant self-evacuation in accordance with Section 3008.

403.5.3 Stairway door operation. Stairway doors other than the exit discharge doors shall be permitted to be locked from the stairway side. Stairway doors that are locked from the stairway side shall be capable of being unlocked simultaneously without unlatching upon a signal from the fire command center.

403.5.3.1 Stairway communication system. A telephone or other two-way communications system connected to an approved constantly attended station shall be provided at not less than every fifth floor in each stairway where the doors to the stairway are locked.

403.5.4 Smokeproof enclosures. Every required exit stairway serving floors more than 75 feet (22 860 mm) above the lowest level of fire

department vehicle access shall be a smokeproof enclosure in accordance with Sections 909.20 and 1022.10.

403.5.5 Luminous egress path markings. Luminous egress path markings shall be provided in accordance with Section 1024.

403.5.6 Emergency escape and rescue. Emergency escape and rescue openings required by Section 1029 are not required.

23.10.403.7 International Building Code Section 403.7 Added -- Smoke Control.

International Building Code Section 403 is hereby amended to add a new subsection 403.7 to read as follows:

403.7 Smoke control. A smoke-control system meeting the requirements of Section 909 shall be provided in all areas containing a Group I or Group R occupancy within high-rise buildings. Such areas shall be separated from all other building areas by a minimum of 1-hour fire-resistance rating of construction, but not less than required by Table 508.4, in accordance with Section 508.4, and smoke barrier construction in accordance with Section 710 and Section 909 to create separate smoke zones, or smoke control shall be provided in all such unseparated areas of the building.

23.10.405.1 International Building Code Section 405.1 amended –General.

International Building Code Section 405.1 is hereby amended to read as follows:

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

Exceptions:

1. One- and two-family dwellings, sprinklered in accordance with Section 903.3.1.3.
2. Parking garages with automatic sprinkler systems in compliance with Section 405.3 and pressurized stair enclosures provided with emergency power in compliance with Sections 909.20, 909.20.5, and 909.20.6.
3. Fixed guideway transit systems, complying with NFPA 130 as amended by the City of Bellevue.
4. Grandstands, bleachers, stadiums, arenas and similar facilities.

5. Where the lowest story is the only story that would qualify the building as an underground building and has an area not exceeding 1,500 square feet (139 m²) and has an occupant load less than 10.

6. Pumping stations and other similar mechanical spaces intended only for limited periodic use by service or maintenance personnel.

23.10.405.8 International Building Code Section 405.8 amended – Standby power.

International Building Code Section 405.8 is hereby amended to read as follows:

405.8 Standby power. A standby power system complying with Table 403(1), and NFPA 70 (National Electrical Code) Article 701 Legally Required Standby Power except as designated in Table 403(1), shall be provided.

405.8.1 Special requirements for standby power systems. If the standby system is a generator set inside a building, the system shall be located in a separate room enclosed with 2-hour fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 712, or both, and shall be in a separate room from the normal power source including transformers and distribution equipment. Power distribution from the emergency source to the emergency transfer switch shall be by an independent route from the normal power source. System supervision with manual start and transfer features shall be provided at the fire command center.

Fuel-fired standby power generator sets and associated fuel storage, including optional landlord- or tenant-owned generator sets, located at a floor level more than 30 feet below the lowest level of exit discharge, require the approval of the Fire Code Official.

405.8.2 Standby power loads. Standby power loads shall be classified in accordance with Table 403(1).

23.10.405.9 International Building Code Section 405.9 amended – Emergency power.

International Building Code Section 405.9 is hereby amended to read as follows:

405.9 Emergency power. An emergency power system complying with Table 403(1), and NFPA 70 (National Electrical Code) Article 700 Emergency Standby Power except as designated in Table 403(1), shall be provided. Fire pumps shall comply with NFPA 20 and NFPA 70 Article 695.

405.9.1 Special requirements for emergency power systems. If the emergency power system is a generator set inside a building, the system shall be located in a separate room enclosed with 2-hour fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 712, or both, and shall be in a separate room from the normal power source including transformers and distribution equipment. Power distribution from the emergency source to the emergency transfer switch shall be by an independent route from the normal power source. System supervision with manual start and transfer features shall be provided at the fire command center.

Fuel-fired emergency generator sets and associated fuel storage, including optional landlord- or tenant-owned generator sets, located at a floor level more than 30 feet below the lowest level of exit discharge, require the approval of the fire code official.

405.9.2 Emergency power loads. Emergency power loads shall be classified in accordance with Table 403(1).

23.10.713.14.1 International Building Code Section 713.14.1 amended – Elevator lobby.

International Building Code Section 713.14.1 is hereby amended to read as follows:

713.14.1 Elevator lobby. An enclosed elevator lobby shall be provided at each floor where an elevator shaft enclosure connects more than three stories. The lobby enclosure shall separate the elevator shaft enclosure doors from each floor by fire partitions. In addition to the requirements in Section 708 for fire partitions, doors protecting openings in the elevator lobby enclosure walls shall also comply with Section 716.5.3 as required for corridor walls, and penetrations of the elevator lobby enclosure by ducts and air transfer openings shall be protected as required for corridors in accordance with Section 717.5.4.1. Elevator lobbies shall have at least one means of egress complying with Chapter 10 and other provisions within this code.

Exceptions:

1. Enclosed elevator lobbies are not required at the level(s) of exit discharge, provided the level(s) of exit discharge is equipped with an automatic sprinkler system in accordance with Section 903.3.1.1.
2. Elevators not required to be located in a shaft in accordance with Section 712.1 are not required to have enclosed elevator lobbies.
3. Enclosed elevator lobbies are not required where additional doors are provided at the hoistway opening in accordance with Section 3002.6.

Such doors shall comply with the smoke and draft control door assembly requirements in Section 716.5.3.1 when tested in accordance with UL 1784 without an artificial bottom seal.

4. Enclosed elevator lobbies are not required where the building is protected by an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2. This exception shall not apply to the following:

- 4.1. Group I-2 occupancies;
- 4.2. Group I-3 occupancies; and
- 4.3. Elevators serving floor levels over 75 feet (22,860 mm) above the lowest level of fire department vehicle access in high-rise buildings.

5. Smoke partitions shall be permitted in lieu of fire partitions to separate the elevator lobby at each floor where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2. In addition to the requirements in Section 710 for smoke partitions, doors protecting openings in the smoke partitions shall also comply with Sections 710.5.2.2, 710.5.2.3, and 716.5.9, and duct penetrations of the smoke partitions shall be protected as required for corridors in accordance with Section 717.5.4.1.

6. Enclosed elevator lobbies are not required where the elevator hoistway is pressurized in accordance with Section 909.21, and vertical exit enclosures are pressurized in accordance with Section 909.20.5, and the building is equipped throughout with an automatic sprinkler system in accordance with 903.3.1.1.

7. Enclosed elevator lobbies are not required where the elevator serves only open parking garages in accordance with Section 406.5.

23.10.902.1 International Building Code Section 902.1 amended – Definitions.

International Building Code Section 902.1 is hereby amended to add the following two definitions:

[F] HIGH-RISE BUILDING. Buildings having occupied floors or an occupied roof located more than 75 feet (22,860 mm) above the lowest level of fire department vehicle access.

[F] WATER SUPPLY. The source and delivery system supplying the required flow (gpm) and pressure (psi) to a sprinkler system or other fire protection system/equipment.

23.10.903.2 International Building Code Section 903.2 amended – Where required.

International Building Code Section 903.2 is hereby amended to read as follows:

903.2 Where required. Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in this section.

23.10.903.2.11 International Building Code Section 903.2.11 amended – All occupancies.

International Building Code Section 903.2.11 is hereby amended to read as follows:

903.2.11 All occupancies. In all occupancies other than Group U, an automatic sprinkler system shall be installed for building design or hazards in the locations set forth in Section 903.2.11.1 through 903.2.11.7.

903.2.11.1 Stories and basements without openings. An automatic sprinkler system shall be installed throughout all stories, including basements, of all buildings where the floor area exceeds 1,500 square feet (139.4 m²) and where there is not provided at least one of the following types of exterior wall openings:

1. Openings below grade that lead directly to ground level by an exterior *stairway* complying with Section 1009 or an outside ramp complying with Section 1010. Openings shall be located in each 50 linear feet (15,240 mm), or fraction thereof, of exterior wall in the story on at least one side. The required openings shall be distributed such that the lineal distance between adjacent openings does not exceed 50 feet (15 240 mm).
2. Openings entirely above the adjoining ground level totaling at least 20 square feet (1.86 m²) in each 50 linear feet (15,240 mm), or fraction thereof, of exterior wall in the story on at least one side. The required openings shall be distributed such that the lineal distance between adjacent openings does not exceed 50 feet (15 240 mm). The height of the bottom of the clear opening shall not exceed 44 inches (1118 mm) measured from the floor.

903.2.11.1.1 Opening dimensions and access. Openings shall have a minimum dimension of not less than 30 inches (762 mm). Such openings shall be accessible to the fire department from the exterior and shall not be obstructed in a manner that firefighting or rescue cannot be accomplished from the exterior.

903.2.11.1.2 Openings on one side only. Where openings in a story are provided on only one side and the opposite wall of such story is more than 75 feet (22,860 mm) from such openings, the story shall be equipped throughout with an

approved automatic sprinkler system or openings as specified above shall be provided on at least two sides of the story.

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 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.

903.2.11.2 Rubbish and linen chutes. An automatic sprinkler system shall be installed at the top of rubbish and linen chutes and in their terminal rooms. Chutes shall have additional sprinkler heads installed at alternate floors and at the lowest intake. Where a rubbish chute extends through a building more than one floor below the lowest intake, the extension shall have sprinklers installed that are recessed from the drop area of the chute and protected from freezing in accordance with Section 903.3.1.1. Such sprinklers shall be installed at alternate floors beginning with the second level below the last intake and ending with the floor above the discharge. Chute sprinklers shall be accessible for servicing.

903.2.11.3 Buildings 55 feet or more in height. An automatic sprinkler system shall be installed throughout buildings with a floor level having an occupant load of 30 or more that is located 55 feet (16 764 mm) or more above the lowest level of fire department vehicle access.

903.2.11.4 Ducts conveying hazardous exhausts. Where required by the International Mechanical Code, automatic sprinklers shall be provided in ducts conveying hazardous exhaust, flammable or combustible materials.

Exception: Ducts where the largest cross-sectional diameter of the duct is less than 10 inches (254 mm).

903.2.11.5 Commercial cooking operations. An automatic sprinkler system shall be installed in a commercial kitchen exhaust hood and duct system where an automatic sprinkler system is used to comply with Section 904.

903.2.11.6 Other required suppression systems. In addition to the requirements of Section 903.2, the provisions indicated in Table 903.2.11.6 also require the installation of a fire suppression system for certain buildings and areas.

903.2.11.7 Buildings exceeding 10,000 square feet. Notwithstanding any provision of the International Building Code or International Fire Code, as such codes are adopted by the City, throughout all buildings where the total floor area, including basements, exceeds 10,000 square feet. For purposes of this paragraph, portions of buildings separated by one or more fire walls will not be considered a separate building. Existing buildings shall comply with this section when an addition is made to the building and the total floor area, including the basements, or the

existing building and the addition combined exceeds 10,000 square feet, or when the value of a structural alteration or repair of an existing building 10,000 square feet in area or greater exceeds 50 percent of the assessed valuation of such existing building, or exceeds 50 percent of the recognized replacement cost of the structure, without consideration of depreciation, as determined under the Marshall Valuation Service Cost Handbook, whichever is greater.

23.10.903.3.1.1.1 International Building Code Section 903.3.1.1.1 amended – Exempt locations.

International Building Code Section 903.3.1.1.1 is hereby amended to read as follows:

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

1. Any room where the application of water, or flame and water, constitutes a serious life or fire hazard, when approved by the fire code official.
2. Any room or space where sprinklers are considered undesirable because of the nature of the contents, when approved by the fire code official.
3. In rooms or areas that are of noncombustible construction with wholly noncombustible contents.
4. Fire service access elevator machine rooms and machinery spaces.
5. Machine rooms and machinery spaces associated with occupant evacuation elevators designed in accordance with Section 3008.

23.10.903.3.1.1.2 International Building Code Section 903.3.1.1.2 added – High rise building sprinkler system design.

International Building Code Section 903.3.1.1 is amended by the addition of a new subsection 903.3.1.1.2 to read as follows:

903.3.1.1.2 High rise building sprinkler system design. Combination standpipe/sprinkler risers using 6 in. pipe minimum, shall be used. Shut-off valves and water-flow devices shall be provided on each floor at the sprinkler system

connection to each standpipe. Two four-way fire department connections serving the combination system shall be provided on separate streets well separated from each other. At least one of the fire department connections shall be connected to the riser above a riser isolation valve. Dry pipe sprinkler systems serving parking garages may use one separate two-way fire department connection. The dry pipe sprinkler system shall be supplied by the on-site water tank.

23.10.903.3.1.1.3 International Building Code Section 903.3.1.1.3 added – Seismic coefficient.

International Building Code Section 903.3.1.1 is amended by the addition of a new subsection 903.3.1.1.3 to read as follows:

903.3.1.1.3 Seismic coefficient. The coefficient C_p for seismic bracing design calculations in accordance with NFPA 13 shall either use a value of 0.70, or shall use a value based on site specific USGS data.

23.10.903.3.3 International Building Code Section 903.3.3 amended – Obstructed locations.

International Building Code Section 903.3.3 is hereby amended to read as follows:

903.3.3 Obstructed locations. Automatic sprinklers shall be installed in accordance with NFPA 13 obstruction criteria and the listing requirements of the sprinkler head. Automatic sprinklers shall be installed in or under covered kiosks, displays, booths, concession stands, or equipment that exceeds 4 feet (1,219 mm) in width and depth, and for all multi-level exhibit booths. Not less than a 3-foot (914 mm) clearance shall be maintained between automatic sprinklers and the top of piles of combustibles.

Exception: Kitchen equipment under exhaust hoods protected with a fire-extinguishing system in accordance with Section 904.

23.10.903.3.5.2 International Building Code Section 903.3.5.2 amended – Secondary water supply.

International Building Code Section 903.3.5.2 is hereby amended to read as follows:

903.3.5.2 Secondary water supply. A secondary on-site water supply shall be provided for high-rise buildings as follows:

- 1) High-rise buildings containing R or B occupancy only shall be provided with a net useable volume of 15,000 gallons.
- 2) High-rise buildings containing an S-2 occupancy shall be provided with a net useable volume of 40,000 gallons.

3) High-rise buildings containing an M occupancy shall be provided with a net useable volume of 50,000 gallons.

4) Multi high-rise complexes sharing a common secondary water source shall be provided with a net useable volume calculated by combining the highest demand of number 2 or 3 above with number 1 above. Only one parking/retail area and 2 high-rise buildings may share a common secondary water source.

An acceptable alternative to items 1 through 4 above is to provide a calculated net useable volume capable of meeting the hydraulically calculated sprinkler demand, including the total (combined inside and outside) hose stream requirement, as per NFPA 13. The duration of this calculated source shall have a duration of not less than 30 minutes for buildings with light hazard occupancies only and a 60 minute duration for buildings with ordinary hazard occupancies as defined by NFPA 13.

Exception: Existing buildings.

23.10.903.4.3 International Building Code Section 903.4.3 amended – Floor control valves.

International Building Code Section 903.4.3 is hereby amended to read as follows:

903.4.3 Floor control valves. Approved supervised indicating control valves shall be provided at the point of connection to the riser on each floor. The floor control valves shall be located within 6' of floors or landings unless chains or other approved devices are readily available.

23.11.905.3 International Building Code Section 905.3 amended – Required installations.

Section 905.3 of the International Building Code is hereby amended to read as follows:

905.3 Required installations. Standpipe systems shall be installed where required by Sections 905.3.1 through 905.3.9. Standpipe systems are allowed to be combined with automatic sprinkler systems.

Exception: Standpipe systems are not required in Group R-3 occupancies.

905.3.1 Height. Class III standpipe systems shall be installed throughout buildings where the floor level of the highest story is located more than 30 feet (9144 mm) above the lowest level of fire department vehicle access, or where the floor

level of the lowest story is located more than 30 feet (9144 mm) below the highest level of fire department vehicle access.

Exceptions:

1. Class I standpipes are allowed in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
2. Class I manual standpipes are allowed in open parking garages where the highest floor is located not more than 150 feet (45 720 mm) above the lowest level of fire department vehicle access.
3. Class I manual dry standpipes are allowed in open parking garages that are subject to freezing temperatures, provided that the hose connections are located as required for Class II standpipes in accordance with Section 905.5.
4. Class I standpipes are allowed in basements equipped throughout with an automatic sprinkler system.
5. In determining the lowest level of fire department vehicle access, it shall not be required to consider:
 - 5.1. Recessed loading docks for four vehicles or less; and
 - 5.2. Conditions where topography makes access from the fire department vehicle to the building impractical or impossible.

905.3.2 Group A. Class I automatic wet standpipes shall be provided in nonsprinklered Group A buildings having an occupant load exceeding 1,000 persons.

Exceptions:

1. Open-air-seating spaces without enclosed spaces.
2. Class I automatic dry and semiautomatic dry standpipes or manual wet standpipes are allowed in buildings that are not high-rise buildings.

905.3.3 Covered and open mall buildings. Covered mall and open mall buildings shall be equipped throughout with a standpipe system where required by Section 905.3.1. Mall buildings not required to be equipped with a standpipe system by Section 905.3.1 shall be equipped with Class I hose connections connected to the automatic sprinkler system sized to deliver water at 250 gallons per minute (946.4 L/min) at the most hydraulically remote hose connection while concurrently

supplying the automatic sprinkler system demand. The standpipe system shall be designed to not exceed a 50 pounds per square inch (psi) (345 kPa) residual pressure loss with a flow of 250 gallons per minute (946.4 L/min) from the fire department connection to the hydraulically most remote hose connection. Hose connections shall be provided at each of the following locations:

1. Within the mall at the entrance to each exit passageway or corridor.
2. At each floor-level landing within enclosed stairways opening directly on the mall.
3. At exterior public entrances to the mall of a covered mall building.
4. At public entrances at the perimeter line of an open mall building.
5. At other locations as necessary so that the distance to reach all portions of a tenant space does not exceed 200 feet (60 960 mm) from a hose connection.

905.3.4 Stages. Deleted.

905.3.4.1 Hose and cabinet. Deleted.

905.3.5 Underground buildings. Underground buildings shall be equipped throughout with a Class I automatic wet or manual wet standpipe system.

905.3.6 Helistops and heliports. Buildings with a rooftop helistop or heliport shall be equipped with a Class I or III standpipe system extended to the roof level on which the helistop or heliport is located in accordance with Section 2007.5 of the International Fire Code.

905.3.7 Marinas and boatyards. Standpipes in marinas and boatyards shall comply with Chapter 36 of the International Fire Code.

905.3.8 Rooftop gardens and landscaped roofs. Buildings or structures that have rooftop gardens or landscaped roofs and that are equipped with a standpipe system shall have the standpipe system extended to the roof level on which the rooftop garden or landscaped roof is located.

905.3.9 High Rise Building Standpipes. Standpipe risers shall be combination standpipe/sprinkler risers using a minimum pipe size of 6 inch. One 2-1/2 inch hose connection shall be provided on every intermediate floor level landing in every required stairway and elsewhere as required by NFPA 14. Where, and only where, static or residual water pressures at any hose outlet exceeds 175 psi (1207 kPa), approved pressure-regulating devices shall be installed to limit the pressure to 150 psi (1207 kPa). Such devices shall be adjusted to provide 150 psi (1207 kPa), or as close to that pressure as the adjustment will permit while flowing 300 gpm,

without exceeding 175 psi (1207 kPa). The pressure on the inlet side of the pressure-regulating device shall not exceed the rated working pressure of the device. An additional non-regulated hose connection located directly below the PRV or an equally sized bypass around the pressure regulating device with a normally closed control valve shall be provided at each reduced pressure connection. Signage in accordance with NFPA 14 and Section 912.4 shall be provided.

23.10.905.4 International Building Code Section 905.4 amended – Location of Class I standpipe hose connections. International Building Code Section 905.4 is hereby amended to read as follows:

905.4 Location of Class I standpipe hose connections. Class I standpipe hose connections shall be provided in all of the following locations:

1. In every required stairway, a hose connection shall be provided for each floor level above or below grade. Hose connections shall be located at an intermediate floor level landing between floors. Where stairs are required to provide roof access, the standpipe roof connections shall be located adjacent to the stair opening on the roof.
2. On each side of the wall adjacent to the exit opening of a horizontal exit.

Exceptions:

1. Where floor areas adjacent to a horizontal exit are reachable from exit stairway hose connections by a 30-foot (9,144 mm) hose stream from a nozzle attached to 100 feet (30,480 mm) of hose, a hose connection shall not be required at the horizontal exit.
2. When the fire code official determines that standpipe connection is not needed.
3. In every exit passageway, at the entrance from the exit passageway to other areas of a building.

Exception: Where floor areas adjacent to an exit passageway are reachable from exit stairway hose connections by a 30-foot (9,144 mm) hose stream from a nozzle attached to 100 feet (30,480 mm) of hose, a hose connection shall not be required at the entrance from the exit passageway to other areas of the building.

4. In covered and open mall buildings, adjacent to each exterior public entrance to the mall, adjacent to each entrance from an exit passageway or exit corridor to the mall, at each intermediate landing

within required enclosed stairways, and at other locations as necessary so that the distance to reach all portions of a tenant space does not exceed 200 feet (60,960 mm) from a hose connection.

5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3-percent slope), at least one standpipe shall be provided with a 2 ½ in. hose connection located on the roof. Additional hose connections shall be provided so that all portions of the roof are within 200 feet of hose travel distance from a standpipe hose connection. The hose connection(s) shall be at least 10 feet (3,048 mm) from the roof edge, skylight, light well or other similar openings, unless protected by a 42-inch-high (1,067 mm) guardrail or equivalent. All roof hose connections shall be arranged to be operable without entering the building. Roof connections in high-rise buildings are allowed to be located at the highest landing of a stairway with stair access to the roof. An additional hose connection shall be provided at the top of the most hydraulically remote standpipe for testing purposes.

6. Where the most remote portion of a nonsprinklered floor or story is more than 150 feet (45,720 mm) of hose travel distance from a hose connection or the most remote portion of a sprinklered floor or story is more than 200 feet (60,960 mm) of hose travel distance from a hose connection, additional hose connections shall be provided in vertical exit enclosures or protected locations that are accessed through protected enclosures. The protected enclosure shall be a corridor constructed as a smoke barrier from the exit enclosure to the standpipe connection.

Exception: Hose connections in parking garages must be located in vertical exit enclosures, protected locations, immediately adjacent to exterior exit doors, loading docks or other areas as approved by the fire code official. Subject to the approval of the fire code official the travel distance may also be increased to a maximum distance of 240 feet.

Point of Information: Chapter 10 of this code outlines the requirements for stairways to the roof and roof access. This section (905.4) identifies the locations of standpipes and hose connections, but does not dictate the need for additional stairways to the roof or roof access.

23.10.905.8 International Building Code Section 905.8 amended – Dry standpipes.

International Building Code Section 905.8 is hereby amended to read as follows:

905.8 Dry standpipes. Dry standpipes, when approved by the fire code official, may be installed in other than high rise buildings.

23.10.907.1 International Building Code Section 907.1 amended – General.

International Building Code Section 907.1 is hereby amended to read as follows:

907.1 General. This section covers the application, installation, performance and maintenance of fire alarm systems and their components in new and existing buildings and structures. The requirements of Section 907.2 are applicable to new buildings and structures and new fire alarm systems including replacement of existing fire alarm control panels being installed in existing structures. The requirements of Section 907.3 are applicable to existing buildings and structures. Buildings required by this section to be provided with a fire alarm system shall be provided with a single fire alarm system unless otherwise approved by the fire code official. For the purposes of this section, fire barriers shall not be considered to create separate buildings. Building required by this section to be provided with a fire alarm system shall be provided with a single fire alarm system unless otherwise approved by the fire code official.

23.10.907.2.7.1 International Building Code Section 907.2.7.1 not adopted – Occupant notification.

International Building Code Section 907.2.7.1 is hereby deleted.

23.10.907.2.13.1.1 International Building Code Section 907.2.13.1.1 amended – Area smoke detection.

International Building Code Section 907.2.13.1.1 is hereby amended to read as follows:

907.2.13.1.1 Area smoke detection. Area smoke detectors shall be provided in accordance with this section. Smoke detectors shall be connected to an automatic fire alarm system. The activation of any detector required by this section, other than duct smoke detectors, shall activate the emergency voice/alarm communication system in accordance with Section 907.5.2.2. In addition to smoke detectors required by Sections 907.2.1 through 907.2.10, smoke detectors shall be located as follows, except that where such locations are within unconditioned spaces, other devices may be installed in accordance with 907.4.3.

1. In each mechanical equipment, electrical, transformer, telephone equipment or similar room which is not provided with sprinkler protection.

2. In each elevator machine room and in elevator lobbies.
3. Within 5 feet (1524 mm) of doors opening into stairways that are smoke proof enclosures, or are pressurized stairways.

23.10.907.2.13.2 International Building Code Section 907.2.13.2 amended – Fire department communication system.

International Building Code Section 907.2.13.2 is hereby amended to read as follows:

907.2.13.2 Fire department communication system. An approved two-way, fire department communication system designed and installed in accordance with NFPA 72 shall be provided for fire department use. It shall operate between a fire command center complying with Section 911, elevators, elevator lobbies, emergency and standby power rooms, fire pump rooms, areas of refuge and inside enclosed exit stairways. The fire department communication device shall be provided at each floor level within the enclosed exit stairway.

23.10.907.2.18.1 International Building Code Section 907.2.18.1 amended – Smoke detectors.

International Building Code Section 907.2.18.1 is hereby amended to read as follows:

907.2.18.1 Smoke detectors. A minimum of one smoke detector listed for the intended purpose shall be installed in the following areas:

1. Electrical, non-Utility owned transformer vault rooms, telephone equipment, elevator machine or similar rooms.
2. Elevator lobbies.
3. The main return and exhaust air plenum of each air-conditioning system serving more than one story and located in a serviceable area downstream of the last duct inlet.
4. Each connection to a vertical duct or riser serving two or more floors from return air ducts or plenums of heating, ventilating and air-conditioning systems, except that in Group R occupancies, a listed smoke detector is allowed to be used in each return-air riser carrying not more than 5,000 cfm (2.4 m³/s) and serving not more than 10 air inlet openings.

5. Within 5 ft. of doors opening into stairways that are smokeproof enclosures, or that are pressurized stairways.

Exception: Where any such locations in items 1 through 5 above are within unconditioned spaces, other devices may be installed in accordance with 907.4.3.

23.10.907.5 International Building Code Section 907.5 amended – Occupant notification system.

International Building Code Section 907.5 is hereby amended to read as follows:

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

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

23.10.907.5.2.1.1 International Building Code Section 907.5.2.1.1 amended – Average sound pressure.

International Building Code Section 907.5.2.1.1 is hereby amended to read as follows:

907.5.2.1.1 Average sound pressure. The audible alarm notification appliances shall provide a sound pressure level of 15 decibels (dBA) above the average ambient sound level or 5 dBA above the maximum sound level having a duration of at least 60 seconds, whichever is greater, in every occupiable space within the building, or in the case of a partial alarm system, throughout the space that is being provided with the fire alarm system. The minimum sound pressure levels shall be: 75 dBA in occupancies in Groups R and I-1; 90 dBA in mechanical equipment rooms; and 60 dBA in other occupancies. In assembly occupancies with high sound levels such as nightclubs, bars, theaters, auditoriums, sanctuaries, etc. an interface shall be provided between the fire alarm system and the noise source to eliminate the noise source upon activation of the fire alarm system.

Exception: Private mode signaling in accordance with NFPA 72 shall be allowed in areas of group I-2 and I-3 occupancies where occupants are not expected to self evacuate.

**23.10.907.5.2.2 International Building Code Section 907.5.2.2 amended –
Emergency voice/alarm communication systems.**

International Building Code Section 907.5.2.2 is hereby amended to read as follows:

907.5.2.2 Emergency voice/alarm communication systems.

Emergency voice/alarm communication systems required by this code shall be designed and installed in accordance with NFPA 72. The operation of any automatic fire detector, sprinkler waterflow device or manual fire alarm box shall automatically sound an alert tone followed by voice instructions giving approved information and directions for a general or staged evacuation in accordance with the building's fire safety and evacuation plans required by International Fire Code Section 404. In high-rise buildings, the system shall operate on a minimum of the alarming floor, the floor above and the floor below. Speakers shall be provided throughout the building by paging zones. At a minimum, paging zones shall be provided as follows:

1. Elevator groups.
2. Exit stairways.
3. Each floor.
4. Areas of refuge as defined in Section 1002.1.

Exception: In Group I-1 and I-2 occupancies, the alarm shall sound in a constantly attended area and a general occupant notification shall be broadcast over the overhead page.

907.5.2.2.1 Manual override.

A manual override for emergency voice communication shall be provided on a selective and all-call basis for all paging zones.

907.5.2.2.2 Live voice messages.

The emergency voice/alarm communication system shall also have the capability to broadcast live voice messages by paging zones on a selective and all-call basis.

Point of Information: See Fire Department Emergency Voice/Alarm Information Sheet F-43 for detailed messaging requirements.

907.5.2.2.3 Alternate uses.

The emergency voice/alarm communication system shall be allowed to be used for other announcements, provided the manual fire alarm use takes precedence over any other use.

907.5.2.2.4 Emergency voice/alarm communication captions.

Where stadiums, arenas and grandstands are required to caption audible public announcements in accordance with Section 1108.2.7.3, the

emergency/voice alarm communication system shall also be captioned. Prerecorded or live emergency captions shall be from an approved location constantly attended by personnel trained to respond to an emergency.

907.5.2.2.5 Emergency power.

Emergency voice/alarm communications systems shall be provided with an approved emergency power source.

907.5.2.2.6 Phased Evacuation

All buildings more than 10 stories above grade plane shall utilize an approved phased evacuation plan.

Exceptions:

1. When an additional exit stairway meeting the requirements of Sections IBC 1009 and 1022 are provided in addition to the minimum number of exits required by Section IBC 1021.1.
2. Where the width of each required exit stairway as specified in Section 1009.1 is increased by not less than 24" of additional width.
3. Where occupant self-evacuation elevators in accordance with IBC Section 3008 have been installed.
4. Where full tenant evacuation can be demonstrated to be accomplished in less than 7 minutes.

Point of Information: These provisions are intended to facilitate the simultaneous building evacuation and firefighter response into the building.

23.10.907.5.2.3 International Building Code Section 907.5.2.3 amended – Visible alarms.

International Building Code Section 907.5.2.3 is hereby amended to read as follows:

907.5.2.3 Visible alarms. Visible alarm notification appliances shall be provided in accordance with Sections 907.5.2.3.1 through 907.5.2.3.4.

Exceptions:

1. Visible alarm notification appliances are not required in alterations, except where an existing fire alarm system is replaced, or a new fire alarm system is installed.

2. Visible alarm notification appliances shall not be required in exits as defined in Section 1002.1.

3. Visible alarm notification appliances shall not be required in elevator cars.

907.5.2.3.1 Public and common areas. Visible alarm notification appliances shall be provided in public areas and common areas.

907.5.2.3.2 Employee work areas. Where employee work areas have audible alarm coverage, the notification appliance circuits serving the employee work areas shall be initially designed with a minimum of 20-percent spare capacity to account for the potential of adding visible notification appliances in the future to accommodate hearing impaired employee(s).

907.5.2.3.3 Groups I-1 and R-1. Group I-1 and R-1 dwelling units or sleeping units in accordance with Table 907.5.2.3.3 shall be provided with a visible alarm notification appliance, activated by both the in-room smoke alarm and the building fire alarm system.

TABLE 907.5.2.3.3 - VISIBLE ALARMS

NUMBER OF SLEEP UNITS	SLEEPING ACCOMMODATIONS WITH VISIBLE ALARMS
6 to 25	2
26 to 50	4
51 to 75	7
76 to 100	9
101 to 150	12
151 to 200	14
201 to 300	17
301 to 400	20
401 to 500	22
501 to 1,000	5% of total
1,001 and over	50 plus 3 for each 100 over 1,000

907.5.2.3.4 Group R-2. In Group R-2 occupancies required by Section 907 to have a fire alarm system, all dwelling units and sleeping units shall be provided with the capability to support visible alarm notification appliances in accordance with Chapter 10 of ICC A117.1. Such capability shall be permitted to include the potential for future interconnection of the building fire alarm system with the unit smoke alarms, replacement of audible appliances with combination audible/visible appliances, or future extension of the existing wiring from the unit smoke alarm locations to required locations for visible appliances.

23.10.907.6.3.1 International Building Code Section 907.6.3.1 amended – Annunciator panel.

International Building Code Section 907.6.3.1 is hereby amended to read as follows:

907.6.3.1 Annunciator Panel. All fire alarm systems in buildings without a fire command center shall be provided with an annunciator panel (or the main fire alarm control panel) located inside the building at the main addressed building entrance.

Graphic annunciators, when provided, shall be mounted to maintain the viewer's directional orientation. The visual zone indication on the annunciator panel shall lock in until the system is reset and shall not be canceled by the operation of an audible-alarm silencing switch. Alarm panels and annunciators shall not be installed where they would obstruct exiting. The required exit width plus 12 inches shall be provided when the panel is located in a means of egress. Alarm panels shall not be installed in an exit enclosure providing the sole exit from any space.

23.10.909.1 International Building Code Section 909.1 amended – Scope and purpose.

International Building Code Section 909.1 is hereby amended to read as follows:

909.1 Scope and purpose. This section applies to mechanical or passive smoke control systems when they are required by other provisions of this code and Sections 707.14.2.1 and 909.20. The purpose of this section is to establish minimum requirements for the design, installation and acceptance testing of smoke control systems that are intended to provide a tenable environment for the evacuation or relocation of occupants. These provisions are not intended for the preservation of contents or the timely restoration of operations. Smoke control systems regulated by this section serve a different purpose than the smoke- and heat-venting provisions found in Section 910. Mechanical smoke control systems shall not be considered exhaust systems under Chapter 5 of the International Mechanical Code.

23.10.909.4.6 International Building Code Section 909.4.6 amended – Duration of operation.

International Building Code Section 909.4.6 is hereby amended to read as follows:

909.4.6 Duration of operation. All portions of active or passive smoke control systems shall be capable of continued operation after detection of the fire event for a period of not less than either 20 minutes or 1.5 times the calculated egress time, whichever is less, except that for smoke control in high-rise buildings, the emergency generator shall have fuel capacity for no less than that time stipulated in Table 403(1), and in non-

high-rise buildings, the emergency generator shall have fuel capacity for no less than 2 hours.

23.10.909.10.2 International Building Code Section 909.10.2 amended – Ducts, including shafts acting as ducts.

International Building Code Section 909.10.2 is hereby amended to read as follows:

909.10.2 Ducts, including shafts acting as ducts. Duct materials and joints shall be capable of withstanding the probable temperatures and pressures to which they are exposed as determined in accordance with Section 909.10.1. Ducts shall be constructed and supported in accordance with the International Mechanical Code. Ducts shall be leak tested to 1.5 times the maximum design pressure in accordance with nationally accepted practices. Measured leakage shall not exceed 5 percent of design flow. Results of such testing shall be a part of the documentation procedure. Ducts shall be supported directly from fire-resistance-rated structural elements of the building by substantial, noncombustible supports.

Exception: Flexible connections for the purpose of vibration isolation, complying with the International Mechanical Code, that are constructed of approved fire-resistance-rated materials.

23.10.909.10.3 International Building Code Section 909.10.3 amended – Equipment, inlets and outlets.

International Building Code Section 909.10.3 is hereby amended to read as follows:

909.10.3 Equipment, inlets and outlets. Equipment shall be located so as to not exposed uninvolved portions of the building to an additional fire hazard. Outdoor air inlets shall be located so as to minimize the potential for introducing smoke or flame into the building. Exhaust outlets shall be so located as to minimize reintroduction of smoke into the building and to limit exposure of the building or adjacent buildings to an additional fire hazard. In addition, supply air shall be taken directly from an outside, uncontaminated source located a minimum distance of 20 feet from any air exhaust system or outlet.

23.10.909.11 International Building Code Section 909.11 amended – Power systems.

International Building Code Section 909.11 is hereby amended to read as follows:

909.11 Power systems. The smoke control system shall be supplied with two sources of power. Primary power shall be from the normal building power system. Secondary power shall be from an *approved* standby source complying with NFPA

70 (National Electrical Code). The standby power source and its transfer switches shall be in a separate room from the normal power transformers and switch gears, and ventilated directly to and from the exterior. The room shall be completely enclosed in not less than 1-hour fire barriers constructed in accordance with Section 707, or 1-hour horizontal assemblies constructed in accordance with Section 711, or both, except 2-hour fire-resistance construction shall be required for high-rise and underground buildings per Sections 403 and 405 respectively. Power distribution from the two sources shall be by independent routes to the room containing the automatic transfer switch(s). Independent routes shall mean either a minimum 1-hour fire-resistance separation, or a physical distance of not less than 50 feet. Transfer to full standby power shall be automatic and shall take place within the maximum time to energize loads, as specified in Table 403(1). The systems shall comply with NFPA 70 (National Electrical Code).

23.10.909.17 International Building Code Section 909.17 amended – System response time.

International Building Code Section 909.17 is hereby amended to read as follows:

909.17 System response time. Smoke-control system activation shall be initiated immediately after receipt of an appropriate automatic or manual activation command. Smoke control systems shall activate individual components (such as dampers and fans) in the sequence necessary to prevent physical damage to the fans, dampers, ducts and other equipment. For purposes of smoke control, the fire-fighter's smoke control panel response time shall be the same for automatic or manual smoke control action initiated from any other building control point. The total response time, including that necessary for detection, shut-down of operating equipment and smoke control system startup, shall allow for full operational mode to be achieved before the conditions in the space exceed the design smoke condition. Upon receipt of an alarm condition at the fire alarm control panel, fans, dampers and automatic doors shall have achieved their expected operating state and confirmation of proper operation shall be indicated at the smoke control panel within 60 seconds. Documentation shall be provided in the required final report.

23.10.909.18.8.3.2 International Building Code Section 909.18.8.3.2 added – Certificate of compliance.

International Building Code Section 909.18.8.3 is hereby amended to add the following subsection 909.18.8.3.2 to read as follows:

909.18.8.3.2 Certificate of compliance. A certificate of compliance shall be provided by the special inspector and responsible registered design professional certifying that the referenced property is in substantial compliance. The certificate shall identify the company, designer, special inspector that performed the testing, name, date and address of the property being tested. The following statement must

also be included: "I have reviewed the report and by personal knowledge and on-site observation certify that the smoke control system is in substantial compliance with the approved design documents, and to the best of my understanding complies with requirements of the applicable codes as identified in the smoke control report."

23.10.909.20 International Building Code Section 909.20 amended – Smokeproof enclosures.

International Building Code Section 909.20 is hereby amended to read as follows:

909.20 Smokeproof enclosures. Where required by Section 1022.10, a smokeproof enclosure shall be constructed in accordance with this section. All portions of the smokeproof enclosure ventilation system and equipment must comply with the provisions of Section 909. A smokeproof enclosure shall consist of an enclosed interior exit stairway that conforms to Section 1022.2 and an open exterior balcony or ventilated vestibule meeting the requirements of this section. Where access to the roof is required by Section 1009.16, such access shall be from the smokeproof enclosure where a smokeproof enclosure is required.

23.10.909.20.5 International Building Code Section 909.20.5 amended – Stair pressurization alternative.

International Building Code Section 909.20.5 is hereby amended to read as follows:

909.20.5 Stair pressurization alternative. Where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, the vestibule is not required, provided that interior exit stairways are pressurized to a minimum of 0.10 inches of water (25 Pa) and a maximum of 0.35 inches of water (87 Pa) in the shaft relative to the building measured with all stairway doors closed under maximum anticipated conditions of stack effect and wind effect. The pressure difference across doors shall not exceed 30 lbs. (133-N) maximum force to begin opening the door. For stair enclosure pressurization story increase as allowed by Washington State amendment to Section 504.3, the pressurization fan power may be supplied from either an emergency generator, or a connection ahead of the main building power disconnect.

23.10.909.20.6.3 International Building Code Section 909.20.6.3 amended – Acceptance and testing.

International Building Code Section 909.20.6.3 is hereby amended to read as follows:

909.20.6.3 Acceptance and testing. Special inspection for performance shall be required in accordance with Section 909.18.8.

23.10.909.21.1 International Building Code Section 909.21.1 amended – Pressurization requirements.

International Building Code Section 909.21.1 is hereby amended to read as follows:

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, and in accordance with IBC Section 909.10.3.

23.10.909.21.3 International Building Code Section 909.21.3 amended – Ducts for system.

International Building Code Section 909.21.3 is hereby amended to read as follows:

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, and equipment, control wiring, power wiring, and ductwork shall comply with one of the methods specified in Sections 909.20.6.1.1, 909.20.6.1.2, or 909.20.6.1.3. Ducts shall be in accordance with Section 909.10.2.

23.10.909.21.4.4 International Building Code Section 909.21.4.4 amended – Fan capacity.

International Building Code Section 909.21.4.4 is hereby amended to read as follows:

909.21.4.4 Fan capacity. The supply fan shall either be adjustable with a capacity of at least 1,000 cfm (.4719 m³/s) per door, or that specified by a registered design professional to meet the requirements of a designed pressurization system. Fans shall be in accordance with Section 909.10.5.

23.10.909.21.5 International Building Code Section 909.21.5 amended – Standby power.

International Building Code Section 909.21.5 is hereby amended to read as follows:

909.21.5 Standby power. The elevator hoistway pressurization system shall be provided with standby power and the transfer to full standby power shall be automatic. For high-rise buildings, the transfer to standby power shall be in accordance with Table 403(1). For non-high-rise buildings, the transfer to standby power shall take place within 60 seconds per NFPA 70 (National Electrical Code Article 701 Legally Required Standby Power) with a run duration of not less than 2 hours.

23.10.911.1.2 International Building Code Section 911.1.2 – Separation & penetrations.

International Building Code Section 911.1.2 is hereby amended to read as follows:

911.1.2 Separation & penetrations. Fire command center shall be separated from the remainder of the building by not less than a 2 hr 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. Penetrations into and openings through a fire command center are prohibited except for required exit doors, equipment and ductwork necessary for heating, cooling or ventilation, sprinkler branch line piping, electrical raceway for fire department communication and control and electrical raceway serving the fire command center or being controlled from the fire command center. Such penetrations shall be protected in accordance with Section 714.

Exception: Metallic piping with no joints or openings.

23.10.912.4 International Building Code Section 912.4 amended – Signs.

International Building Code Section 912.4 is hereby amended to read as follows:

912.4 Signs. A metal sign with raised letters at least 1 inch (25 mm) in size shall be mounted on all fire department connections serving automatic sprinklers, standpipes or fire pump connections. Such signs shall read: SPRINKLERS, STANDPIPES, COMBINED, DRY S/PIPES, DRY S/P & SPKRS, BOOST TO _____ (as specified by the fire code official) PSI, or TEST CONNECTION or a combination thereof as applicable. Systems utilizing Pressure Reducing Valves (PRV's) must note the required boosted pressure at the Fire Department Connection, in order to overcome the PRV setting.

23.10.913.2 International Building Code Section 913.2 amended – Protection against interruption of service.

International Building Code Section 913.2 is hereby amended to read as follows:

913.2 Protection against interruption of service. The fire pump, driver, and controller shall be protected in accordance with NFPA 20 against possible interruption of service through damage caused by explosion, fire, flood, earthquake, rodents, insects, windstorm, freezing, vandalism and other adverse conditions.

913.2.1 Protection of fire pump rooms and access. Fire pumps shall be located in rooms that are separated from all other areas of the building by 2-hour fire barriers constructed in accordance with Section 707 or 2-hour horizontal assemblies constructed in accordance with Section 711, or both. Fire pump rooms not directly accessible from the outside shall be accessible through an enclosed passageway from an enclosed stairway or exterior exit. The enclosed passageway shall have a fire-resistance rating not less than the fire-resistance rating of the fire pump room (See NFPA 20 Section 4.12.2.1.2).

**23.10.1006.3 International Building Code Section 1006.3 amended –
Emergency power for illumination.**

International Building Code Section 1006.3 is hereby amended to read as follows:

1006.3 Emergency power for illumination. The power supply for means of egress illumination shall normally be provided by the premises' electrical supply.

In the event of power supply failure, an emergency electrical system shall automatically illuminate all of the following areas:

1. Aisles and unenclosed egress stairways in rooms and spaces that require two or more means of egress.
2. Corridors, interior exit stairways and ramps and exit passageways in buildings required to have two or more exits.
3. Exterior egress components at other than their levels of exit discharge until exit discharge is accomplished for buildings required to have two or more exits.
4. Interior exit discharge elements, as permitted in Section 1027.1, in buildings required to have two or more exits.
5. Exterior landings as required by Section 1008.1.6 for exit discharge doorways in buildings required to have two or more exits.

The emergency power system shall provide power for a duration of not less than 90 minutes, or such time as stipulated by Table 403(1) when applicable for high-rise or underground buildings, and shall consist of storage batteries, unit equipment or an on-site generator. The installation of the

emergency power system shall be in accordance with NFPA 70 (National Electrical Code).

23.10.1007.4 International Building Code Section 1007.4 amended – Elevators.

International Building Code Section 1007.4 is hereby amended to read as follows:

1007.4 Elevators. In order to be considered part of an accessible means of egress, an elevator shall comply with the emergency operation and signaling device requirements of Section 2.27 of ASME A17.1. Standby power shall be provided in accordance with Section 3003 and NFPA 70 (National Electrical Code Article 701 Legally Required Standby Power) for power transfer within 60 seconds and fuel supply duration of 2 hours. The elevator shall be accessed from either an area of refuge complying with Section 1007.6 or a horizontal exit.

Exceptions:

1. Elevators are not required to be accessed from an area of refuge or horizontal exit in open parking garages.
2. Elevators are not required to be accessed from an area of refuge or horizontal exit in buildings and facilities equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.
3. Elevators not required to be located in a shaft in accordance with Section 712 are not required to be accessed from an area of refuge or horizontal exit.
4. Elevators are not required to be accessed from an area of refuge or horizontal exit for smoke protected seating areas complying with Section 1028.6.2.

23.10.1009.16.1 International Building Code Section 1009.16.1 amended – Roof access.

International Building Code Section 1009.16.1 is hereby amended to read as follows:

1009.16.1 Roof access. Where a stairway is provided to a roof, access to the roof shall be provided through a penthouse complying with Section 1509.2.

Exception: In buildings without an occupied roof, access to the roof shall be permitted to be a roof hatch or trap door not less than 16 square feet in area and having a minimum dimension of 3 feet.

23.10.1011.6.3 International Building Code Section 1011.6.3 amended – Power source.

International Building Code Section 1011.6.3 is hereby amended to read as follows:

1011.6.3 Power source. Exit signs shall be illuminated at all times. To ensure continued illumination for a duration of not less than 90 minutes, or such time as stipulated by Table 403(1) when applicable for high-rise or underground buildings, in case of primary power loss, the sign illumination means shall be connected to an emergency power system provided from storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with NFPA 70 (National Electrical Code).

Exception: Approved exit sign illumination means that provide continuous illumination independent of external power sources for a duration of not less than 90 minutes, in case of primary power loss, are not required to be connected to an emergency power system.

23.10.1612.3 International Building Code Section 1612.3 amended – Establishment of flood hazard areas.

International Building Code Section 1612.3 is hereby amended to read as follows:

1612.3 Establishment of flood hazard areas. To establish flood hazard areas, the applicable governing authority shall adopt a flood hazard map and supporting data. The flood hazard map shall include, at a minimum, areas of special flood hazard as identified by the Federal Emergency Management Agency in an engineering report entitled "The Flood Insurance Study for King County," dated May 16, 1995, as amended or revised with the accompanying Flood Insurance Rate Map (FIRM) and Flood Boundary and Floodway Map (FBFM) and related supporting data along with any revisions thereto. The adopted flood hazard map and supporting data are hereby adopted by reference and declared to be part of this section.

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

1. Obtain and reasonably utilize any design flood elevation and floodway data available from a federal, state or other source; or

2. Determine the design flood elevation and/or floodway in accordance with the City of Bellevue LUC 20.25H.175A and Engineering Standards, Section D4-04.5, "Floodplain/Floodway Analysis" to define special flood hazard areas. Determinations shall be undertaken by a registered design professional who shall document that the technical methods used reflect currently accepted engineering practice.

1612.3.2 Determination of impacts. In riverine flood hazard areas where design flood elevations are specified but floodways have not been designated, the applicant shall provide a floodway analysis that demonstrates that the proposed work will meet the City of Bellevue Engineering Standards, Section D4-04.5, "Floodplain/Floodway Analysis."

23.10.1612.4 International Building Code Section 1612.4 amended – Design and construction.

International Building Code Section 1612.4 is hereby amended to read as follows:

1612.4 Design and construction. The design and construction of buildings and structures located in flood hazard areas, including flood hazard areas subject to high-velocity wave action, shall be in accordance with Chapter 5 of ASCE 7, ASCE 24 and with BCC Section 20.25H.175.

23.10.1613.1 International Building Code Section 1613.1 amended – Scope.

International Building Code Section 1613.1 is hereby amended to read as follows:

1613.1 Scope. Every structure, and portion thereof, including nonstructural components that are permanently attached to structures and their supports and attachments, shall be designed and constructed to resist the effects of earthquake motions in accordance with ASCE 7, excluding Chapter 14 and Appendix 11A. The seismic design category for a structure is permitted to be determined in accordance with Section 1613 or ASCE 7.

Exceptions:

1. Detached one- and two-family dwellings, assigned to Seismic Design Category A, B, or C, or located where the mapped short-period spectral response acceleration, S_s , is less than 0.4 g.
2. The seismic-force-resisting systems of wood-frame buildings that conform to the provisions of Section 2308 are not required to be analyzed as specified in this section.

3. Agricultural storage structures intended only for incidental human occupancy.
4. Structures that require special consideration of their response characteristics and environment that are not addressed by this code or ASCE 7 and for which other regulations provide seismic criteria, such as vehicular bridges, electrical transmission towers, hydraulic structures, buried utility lines and their appurtenances and nuclear reactors.
5. Seismic design of automatic sprinkler systems when hanging, bracing, and restraint is designed and installed in accordance with the 2010 edition of NFPA 13 and the coefficient C_p for seismic bracing design calculations in accordance with NFPA 13 is either a value of 0.70, or a value based on site specific USGS data.

23.10.1705.16 International Building Code Section 1705.16 deleted – Fire-resistant penetrations and joints. International Building Code Section 1705.16 is hereby deleted.

23.10.3002.4 International Building Code Section 3002.4 amended – Elevator car to accommodate ambulance stretcher.

International Building Code Section 3002.4 is hereby amended to read as follows:

3002.4 Elevator car to accommodate ambulance stretcher. Where elevators are provided in buildings four or more stories, or four or more stories below, grade plane, or in any R-1, R-2, or I occupancy building provided with an elevator regardless of the number of stories, at least one elevator shall be provided for fire department emergency access to all floors. The elevator car shall be of such a size and arrangement to accommodate an ambulance stretcher 24 inches by 84 inches with not less than 5-inch radius corners, in the horizontal, open position and shall be identified by the international symbol for emergency medical services (star of life). The symbol shall not be less than 3 inches (76 mm) in height and shall be placed inside on both sides of the hoistway door frame.

23.10.3007.1 International Building Code Section 3007.1 Amended – General.

International Building Code Section 3007.1 is hereby amended to read as follows:

3007.1 General. Where required by Section 403.6.1, every floor of the building shall be served by fire service access elevators complying with Sections 3007.1 through 3007.10. Except as modified in this section, fire service access elevators shall be installed in accordance with this chapter and ASME A17.1/CSA B44.

Exceptions:

1. When below grade portions of high rise buildings are served by elevators not serving above grade portions extending more than 75 feet above the lowest Fire department access and such elevators do not serve levels more than 80 feet below grade plane.
2. Elevators serving mezzanines located below the 7th Story

23.10.3007.2 International Building Code Section 3007.2 Amended – Phase I Emergency recall operation.

International Building Code Section 3007.2 is hereby amended to read as follows:

3007.2 Phase I Emergency recall operation. Actuation of any building fire alarm-initiating device shall initiate Phase I emergency recall operation on all fire service access elevators in accordance with the requirements in ASME A17.1/CSA B44 with a 5 minute delay except for smoke detectors located in associated elevator lobbies, hoistways or elevator machine rooms. All other elevators shall remain in normal service unless Phase I emergency recall operation is manually initiated by a separate, required three-position, key-operated "Fire Recall" switch or automatically initiated by the associated elevator lobby, hoistway or elevator machine room smoke detectors. In addition, if the building also contains occupant evacuation elevators in accordance with Section 3008, an independent, three-position, key-operated "Fire Recall" switch conforming to the applicable requirements in ASME A17.1/CSA B44 shall be provided at the designated level for each fire service access elevator.

23.10.3008.7.6.1 International Building Code Section 3008.7.6.1 added – Lobby status indicator.

International Building Code Section 3008.7.6 is hereby amended to add a subsection 3008.7.6.1 to read as follows:

3008.7.6.1 Lobby status indicator. Each occupant evacuation elevator lobby shall be equipped with a status indicator arranged to display all of the following information:

1. An illuminated green light and the message, "Elevators available for occupant evacuation," when the elevators are operating in normal service and the fire alarm system is indicating an alarm in the building.
2. An illuminated red light and the message, "Elevators out of service, use exit stairs" when the elevators are in Phase I emergency recall operation in accordance with the requirements in ASME A17.1/CSA B44.

3. No illuminated light or message when the elevators are operating in normal service.

3008.7.6.1 Location of lobby status indicator. Visual signals for each elevator group shall be installed on each floor served. They shall be located 84 in. (2,130 mm) to 120 in. (3,000 mm) above the floor and centered above a hall call button. Lettering shall be a minimum of 2 in. (50 mm) high and conform to A117.1 requirement 703.2.

23.10.3304.1.5 International Building Code Section 3304.1.5 added – Excavation and fill.

International Building Code Section 3304.1 is hereby amended by the addition of a new subsection 3304.1.5 to read as follows:

3304.1.5. Excavation and Shoring Near Improved Public Places.

No person, firm or corporation shall excavate and/or install shoring in excess of four feet, measured vertically, on private property within any area between the vertical prolongation of the margin of an improved public place and a 100 percent slope plane (45 degrees from a horizontal plane) from the existing elevation of the margin of the traveled surface of an improved public place to the proposed elevation of the private property without first obtaining a permit from the building official to do so, and no work shall commence toward such excavation and shoring until a permit therefor has been issued by the building official. Improved public place means any street, alley, easement for water, sewer or storm drainage, or similar parcel of land which is deeded, dedicated or otherwise permanently made available to the City or public for city or public use.

23.10.3306.1 International Building Code Table 3306.1 amended – Protection of pedestrians.

International Building Code Table 3306.1 is hereby amended to read as follows:

**TABLE 3306.1
PROTECTION OF PEDESTRIANS**

HEIGHT OF CONSTRUCTION	DISTANCE FROM CONSTRUCTION TO LOT LINE OR PEDESTRIAN WALKWAY	TYPE OF PROTECTION
8 feet or less	Less than 5 feet	Construction railings
	5 feet or more	None
More than 8 feet	Less than 5 feet	Barrier and covered walkway
	5 feet or more, but not more than one-fourth the height of construction	Barrier and covered walkway
	5 feet or more, but between one-fourth and one-half the height of construction	Barrier
	5 feet or more, but exceeding one-half the height of construction	None

23.10.3306.2 International Building Code Section 3306.2 amended – Walkways.

International Building Code Section 3306.2 is hereby amended to read as follows:

3306.2 Walkways. A walkway shall be provided for pedestrian travel in front of every construction and demolition site unless the applicable governing authority authorizes the sidewalk to be fenced or closed. Walkways shall be of sufficient width to accommodate the pedestrian traffic, but in no case shall they be less than 4 feet (1219 mm) in width. Walkways shall be provided with a durable walking surface. Walkways shall be accessible in accordance with Chapter 11 and shall be designed to support all imposed loads and in no case shall the design live load be less than 150 pounds per square foot (psf) (7.2 kN/m²). Where a pedestrian walkway passes into or through, or adjacent to, an area under construction or demolition, protection shall be provided as required by this chapter and Table 3306.1.

Section 7. Chapter 23.12 of the Bellevue City Code is hereby repealed in its entirety and replaced with a new Chapter 23.12 to read as follows:

**Chapter 23.12
RESIDENTIAL CODE**

Sections:

- 23.12.010 Adoptions.
- 23.12.020 Amendments, additions, or exceptions to the 2012 International Residential Code.

- 23.12.301.2.1 International Residential Code Table R301.2(1) amended – Climatic and geographic design criteria.
- 23.12.322.1.4 International Residential Code Section 322.1.4 amended – Establishing the design flood elevation.

23.12.010 Adoptions.

The following codes, all as amended, added to or excepted in this chapter, together with all amendments and additions provided in this title, are adopted and shall be applicable within the city:

A. International Residential Code.

1. Code Adoption. The 2012 Edition of the International Residential Code published by the International Code Council, as adopted and amended by the State Building Code Council in Chapter 51-51 WAC, excluding Chapter 1, "Scope and Administration," is adopted, together with Section AG105 of Appendix Chapter G, "Swimming Pools, Spas and Hot Tubs," and shall be applicable within the city, as amended, added to and excepted in this chapter.

2. Scope. The provisions of the International Residential Code, as adopted, amended, added to, or excepted in this chapter, shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal and demolition of detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade plane in height with a separate means of egress and their accessory structures, including adult family homes, foster family care homes and family day care homes licensed by the Washington State Department of Social and Health Services.

Exception: Live/work units complying with the requirements of Section 419 of the International Building Code shall be permitted to be built as one- and two-family dwellings or townhouses. Fire suppression required by Section 419.5 of the International Building Code when constructed under the International Residential Code for One- and Two-Family Dwellings shall conform to Section 903.3.1.3 of the International Building Code.

23.12.020 Amendments, additions, or exceptions to the 2012 International Residential Code.

Pursuant to RCW 19.27.060, the following contains amendments, additions, or exceptions to the International Residential Code applicable and enforceable within the city.

23.12.301.2.1 International Residential Code Table R301.2(1) amended – Climatic and geographic design criteria.

International Residential Code Table R301.2(1) is hereby amended to read as follows:

IRC TABLE R301.2(1)
CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

Ground Snow Load	WIND DESIGN		Seismic Design Category	SUBJECT TO DAMAGE FROM			Winter Design Temp ^e	Ice Barrier Under-layment Required ^h	Flood Hazards ^g	Air Freezing Index ⁱ	Mean Annual Temp ^j
	Speed ^d (mph)	Topographic effects ^k		Weathering ^a	Frost line depth ^b	Termite ^c					
25 (roof snow load shall also be 25 psf unless proven otherwise by the licensed structural engineer-of-record.)	85	NO	D2	MODERATE	12"	Slight to Moderate	22	NO	March 12, 1974 entry into National Flood Insurance Program. Current maps dated May 16, 1995 entitled "The Flood Insurance Study for King County"	170	51

For SI: 1 pound per square foot = 0.0479 kPa, 1 mile per hour = 0.447 m/s.

a. Weathering may require a higher strength concrete or grade of masonry than necessary to satisfy the structural requirements of this code. The weathering column shall be filled in with the weathering index (i.e., "negligible," "moderate" or "severe") for concrete as determined from the Weathering Probability Map [Figure R301.2(3)]. The grade of masonry units shall be determined from ASTM C 34, C 55, C 62, C 73, C 90, C 129, C 145, C 216 or C 652.

b. The frost line depth may require deeper footings than indicated in Figure R403.1(1). The jurisdiction shall fill in the frost line depth column with the minimum depth of footing below finish grade.

c. The jurisdiction shall fill in this part of the table to indicate the need for protection depending on whether there has been a history of local subterranean termite damage.

d. The jurisdiction shall fill in this part of the table with the wind speed from the basic wind speed map [Figure R301.2(4)A]. Wind exposure category shall be determined on a site-specific basis in accordance with Section R301.2.1.4.

e. The outdoor design dry-bulb temperature shall be selected from the columns of 97 1/2-percent values for winter from Appendix D of the International Plumbing Code. Deviations from the Appendix D temperatures shall be permitted to reflect local climates or local weather experience as determined by the building official.

f. The jurisdiction shall fill in this part of the table with the Seismic Design Category determined from Section R301.2.2.1.

g. The jurisdiction shall fill in this part of the table with (a) the date of the jurisdiction's entry into the National Flood Insurance Program (date of adoption of the first code or ordinance for management of flood hazard areas), (b) the date(s) of the Flood Insurance Study and (c) the panel numbers and dates of all currently effective FIRMs and FBFMs or other flood hazard map adopted by the authority having jurisdiction, as amended.

h. In accordance with Sections R905.2.7.1, R905.4.3.1, R905.5.3.1, R905.6.3.1, R905.7.3.1 and R905.8.3.1, where there has been a history of local damage from the effects of ice damming, the jurisdiction shall fill in this part of the table with "YES." Otherwise, the jurisdiction shall fill in this part of the table with "NO."

i. The jurisdiction shall fill in this part of the table with the 100-year return period air freezing index (BF-days) from Figure R403.3(2) or from the 100-year (99 percent) value on the National Climatic Data Center data table "Air Freezing Index-USA Method (Base 32° Fahrenheit)" at www.ncdc.noaa.gov/fpsf.html.

j. The jurisdiction shall fill in this part of the table with the mean annual temperature from the National Climatic Data Center data table "Air Freezing Index-USA Method (Base 32°F)" at www.ncdc.noaa.gov/fpsf.html.

k. In accordance with Section R301.2.1.5, where there is local historical data documenting structural damage to buildings due to topographic wind speed-up effects, the jurisdiction shall fill in this part of the table with "YES." Otherwise, the jurisdiction shall indicate "NO" in this part of the table.

**23.12.322.1.4 International Residential Code Section 322.1.4 amended –
Establishing the design flood elevation.**

International Residential Code Section R322.1.4 is hereby amended to read as follows:

R322.1.4 Establishing the design flood elevation. The design flood elevation shall be used to define flood hazard areas. At a minimum, the design flood elevation is one foot above the higher of:

1. The base flood elevation at the depth of peak elevation of flooding (including wave height) which has a 1 percent (100-year flood) or greater chance of being equaled or exceeded in any given year, or
2. The elevation of the design flood associated with the area designated on a flood hazard map adopted by the community, or otherwise legally designated.

R322.1.4.1 Determination of design flood elevations. If design flood elevations are not specified, the Building Official is authorized to require the applicant to:

1. Obtain and reasonably utilize any design flood elevation and floodway data available from a federal, state or other source; or
2. Determine the design flood elevation and/or floodway in accordance with the City of Bellevue LUC 20.25H.175A and Engineering Standards, Section D4-04.5, "Floodplain/Floodway Analysis" to define special flood hazard areas. Determinations shall be undertaken by a registered design professional who shall document that the technical methods used reflect currently accepted engineering practice.

R322.1.4.2 Determination of impacts. In riverine flood hazard areas where design flood elevations are specified but floodways have not been designated, the applicant shall provide a floodway analysis that demonstrates that the proposed work will meet the City of Bellevue Engineering Standards, Section D4-04.5, "Floodplain/Floodway Analysis."

Section 8. Section 23.16.010 of the Bellevue City Code is hereby amended to read as follows:

23.16.010 Barrier requirements – Specifications.

The following requirements shall apply to all outdoor swimming pools, spas and hot tubs heretofore or hereafter constructed or presently under construction within the city. Each such pool, spa, or hot tub shall be enclosed with a pool or yard fence, designed per the International Building Code Section 3109 adopted pursuant to Chapter 23.10 BCC, or the International Residential Code AG105, adopted pursuant

to Chapter 23.12 BCC, whichever shall apply to the primary use and structure with which the pool, spa, or hot tub is associated.

Exception:

Any outdoor swimming pool, spa or hot tub which was constructed prior to adoption of the International Building Code or the International Residential Code under Chapter 23.10 BCC under this chapter need not comply with the terms of this section if such swimming pool, hot tub or spa is enclosed with a pool or yard fence which complies with the applicable Bellevue City Code provision regarding pool, spa, or hot tub enclosures which was in effect at the time the enclosure was constructed.

Section 9. Chapter 23.50 of the Bellevue City Code is hereby repealed in its entirety and replaced with a new Chapter 23.50 to read as follows:

**Chapter 23.50
MECHANICAL CODE**

Sections:

- 23.50.010 Adoptions.
- 23.50.020 Amendments, additions, or exceptions to the 2012 International Mechanical Code.
- 23.50.401.4 International Mechanical Code Section 401.4 amended – Intake opening location.
- 23.50.405.1 International Mechanical Code Section 405.1 amended – General
- 23.50.501.3 International Mechanical Code Section 501.3 amended – Exhaust discharge.
- 23.50.504.4 International Mechanical Code Section 504.4 amended – Exhaust installation.
- 23.50.513.10.3 International Building Code Section 513.10.3 amended – Equipment, inlets and outlets.

23.50.010 Adoptions.

The following codes, all as amended, added to or excepted in this chapter, together with all amendments and additions provided in this title, are adopted and shall be applicable within the city:

A. International Mechanical Code.

1. Code Adoption. The 2012 Edition of the International Mechanical Code published by the International Code Council, as adopted and amended by the State Building Code Council in Chapter 51-52 WAC, excluding Chapter 1, "Administration," is adopted and shall be applicable within the city, as amended, added to and excepted in this chapter.

2. Scope. This code shall regulate the design, installation, maintenance, alteration and inspection of mechanical systems that are permanently installed and utilized to provide control of environmental conditions and related processes within buildings. This code shall also regulate those mechanical systems, system components, equipment and appliances specifically addressed herein. The installation of fuel gas distribution piping and equipment, fuel gas-fired appliances and fuel gas-fired appliance venting systems shall be regulated by the International Fuel Gas Code.

Exceptions:

1. Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories high with separate means of egress and their accessory structures shall comply with the International Residential Code.

2. The standards for liquefied petroleum gas installations shall be the 2011 Edition of NFPA 58 (Liquefied Petroleum Gas Code) and the 2012 Edition of NFPA 54 (ANSI Z223.12006 National Fuel Gas Code).

B. National Fuel Gas Code (NFPA 54). The 2008 Edition of the National Fuel Gas Code published by the National Fire Protection Association, as amended by the State Building Code Council in Chapter 51-52 WAC, is adopted and shall be applicable within the city, as amended, added to and excepted in this chapter.

C. Liquefied Petroleum Gas Code (NFPA 58). The 2011 Edition of the Liquefied Petroleum Gas Code published by the National Fire Protection Association, as amended by the State Building Code Council in Chapter 51-52 WAC, is adopted and shall be applicable within the city, as amended, added to and excepted in this chapter.

D. International Fuel Gas Code. The 2012 Edition of the International Fuel Gas Code published by the International Code Council, as amended by the State Building Code Council in Chapter 51-52 WAC, excluding Chapter 1, "Administration," together with Appendix Chapter A, "Sizing and Capacities of Gas Piping," is adopted and shall be applicable within the city, as amended, added to and excepted in this chapter.

23.50.020 Amendments, additions, or exceptions to the 2012 International Mechanical Code.

Pursuant to RCW 19.27.060, the following contains amendments, additions, or exceptions to the International Mechanical Code applicable and enforceable within the city.

23.50.401.4 International Mechanical Code Section 401.4 amended – Intake opening location.

International Mechanical Code Section 401.4 is hereby amended to read as follows:

401.4 Intake opening location. Air intake openings shall comply with all of the following:

1. Intake openings shall be located a minimum of 10 feet (3048 mm) from lot lines or buildings on the same lot.
2. Mechanical and gravity outdoor air intake openings shall be located not less than 10 feet (3048 mm) horizontally from any hazardous or noxious contaminant source, such as vents, streets, alleys, parking lots and loading docks, except as specified in Item 3 or Section 501.2.1. Outdoor air intake openings shall be permitted to be located less than 10 feet (3048 mm) horizontally from streets, alleys, parking lots and loading docks provided that the openings are located not less than 25 feet (7620 mm) vertically above such locations. Where openings front on a street or public way, the distance shall be measured from the closest edge of the street or public way.

Exception: For existing buildings, the building official may approve heights less than 25 feet with alternative designs that account for factors such as distance from lane of vehicle travel, prevailing wind, filtering of intake air, or other elements of the design or the site conditions that affect the adjacent exterior air quality.

3. Intake openings shall be located not less than 3 feet (914 mm) below contaminant sources where such sources are located within 10 feet (3048 mm) of the opening.
4. Intake openings on structures in flood hazard areas shall be at or above the elevation required by Section 1612 of the International Building Code for utilities and attendant equipment.

23.50.405.1 International Mechanical Code Section 405.1 amended – General.

International Mechanical Code Section 405.1 is hereby amended to read as follows:

405.1 General. Mechanical ventilation systems shall be provided with manual or automatic controls that will operate such systems whenever the spaces are occupied. Air-conditioning systems that supply required ventilation air shall be provided with controls designed to automatically maintain the required outdoor air supply rate during occupancy. For additional mechanical system control requirements, refer to the 2012 International Energy Conservation Code Section C403.2.4 HVAC System Controls, as amended by the State of Washington.

23.50.501.3 International Mechanical Code Section 501.3 amended – Exhaust discharge.

International Mechanical Code Section 501.3 is hereby amended to read as follows:

501.3 Exhaust discharge. The air removed by every mechanical exhaust system shall be discharged outdoors at a point where it will not cause a nuisance and not less than the distances specified in Section 501.2.1. The air shall be discharged to a location from which it cannot again be readily drawn in by a ventilating system. Air shall not be exhausted into an attic or crawlspace.

EXCEPTIONS:

1. Whole-house ventilation-type attic fans shall be permitted to discharge into the attic space of dwelling units having private attics.
2. Commercial cooking recirculating systems.

501.3.1 Location of exhaust outlets. The termination point of exhaust outlets and ducts discharging to the outdoors shall be located with the following minimum distances:

1. For ducts conveying explosive or flammable vapors, fumes or dusts: 30 feet (9144 mm) from the property line; 10 feet (3048 mm) from operable openings into the building; 6 feet (1829 mm) from exterior walls and roofs; 30 feet (9144 mm) from combustible walls and operable openings into the building which are in the direction of the exhaust discharge; 10 feet (3048 mm) above adjoining grade.
2. For other product-conveying outlets: 10 feet (3048 mm) from property lines; 3 feet (914 mm) from exterior walls and roofs; 10 feet (3048 mm) from operable openings into the building; 10 feet (3048 mm) above adjoining grade.
3. For environmental air exhaust other than enclosed parking garage and transformer vault exhaust: 3 feet (914 mm) from property lines, 3 feet (914 mm) from operable openings into buildings for all occupancies other than Group U, and 10 feet (3048 mm) from mechanical air intakes. Such exhaust shall not be considered hazardous or noxious.

EXCEPTIONS:

1. The separation between an air intake and exhaust outlet on a single listed package HVAC unit.

2. Exhaust from environmental air systems other than garages may be discharged into an open parking garage.
3. Except for Group I occupancies, where ventilation system design circumstances require building HVAC air to be relieved, such as during economizer operation, such air may be relieved into an open or enclosed parking garage within the same building.
4. Exhaust outlets serving structures in flood hazard areas shall be installed at or above the elevation required by Section 1612 of the International Building Code, as amended by the State of Washington, for utilities and attendant equipment.
5. For enclosed parking garage exhaust system outlets and transformer vault exhaust system outlets: 10 feet (3048 mm) from property lines which separate one lot from another; 10 feet (3048 mm) from operable openings into buildings; 10 feet (3048 mm) above adjoining sidewalk.

EXCEPTION: Parking garage and transformer vault exhaust outlets may terminate less than 10' above grade at the discretion of the building official.

6. For elevator machinery rooms in enclosed or open parking garages, exhaust outlets may discharge air directly into the parking garage.
7. For specific systems see the following sections:
 - 7.1 Clothes dryer exhaust, Section 504.4.
 - 7.2 Kitchen hoods and other kitchen exhaust equipment, Sections 506.3.13, 506.4 and 506.5.
 - 7.3 Dust stock and refuse conveying systems, Section 511.2.
 - 7.4 Subslab soil exhaust systems, Section 512.4.
 - 7.5 Smoke control systems, Section 513.10.3.
 - 7.6 Refrigerant discharge, Section 1105.7.
 - 7.7 Machinery room discharge, Section 1105.6.1.

501.3.1.1 Exhaust discharge. Exhaust air shall not be directed onto walkways.

EXCEPTION: For existing buildings, the building official may approve an alternative design for commercial kitchen exhaust discharge that accounts for factors such as height above walkway, horizontal distance from walkway, filtering of exhaust air, or other elements of the design or the site conditions that affect the exhaust air quality and the walkway environment.

23.50.504.4 International Mechanical Code Section 504.4 amended – Exhaust installation.

International Mechanical Code Section 504.4 is hereby amended to read as follows:

504.4 Exhaust installation. Dryer exhaust ducts for clothes dryers shall terminate on the outside of the building and shall be equipped with a backdraft damper. Dryer exhaust ducts may terminate at approved exterior louvers with not less than 1" openings in any direction. Screens shall not be installed at the duct termination. Ducts shall not be connected or installed with sheet metal screws or other fasteners that will obstruct the exhaust flow. Clothes dryer exhaust ducts shall not be connected to a vent connector, vent or chimney. Clothes dryer exhaust ducts shall not extend into or through ducts or plenums.

23.50.513.10.3 International Building Code Section 513.10.3 amended – Equipment, inlets and outlets.

International Mechanical Code Section 513.10.3 is hereby amended to read as follows:

513.10.3 Equipment, inlets and outlets. Equipment shall be located so as to not exposed uninvolved portions of the building to an additional fire hazard. Outdoor air inlets shall be located so as to minimize the potential for introducing smoke or flame into the building. Exhaust outlets shall be so located as to minimize reintroduction of smoke into the building and to limit exposure of the building or adjacent buildings to an additional fire hazard. In addition, supply air shall be taken directly from an outside, uncontaminated source located a minimum distance of 20 feet from any air exhaust system or outlet.

Section 10. Chapter 23.60 of the Bellevue City Code is hereby repealed in its entirety and replaced with a new Chapter 23.60 to read as follows:

**Chapter 23.60
PLUMBING CODE**

Sections:

- 23.60.010 Uniform Plumbing Code.
- 23.60.020 Scope.
- 23.60.030 Amendments, additions, or exceptions to the 2012 International Plumbing Code.
- 23.60.1101.11.2.2(B) Uniform Plumbing Code Section 1101.11.2.2(B) amended – Combined system.

23.60.010 Uniform Plumbing Code.

The 2012 Edition of the Uniform Plumbing Code published by the International Association of Plumbing and Mechanical Officials, as adopted and amended by the State Building Code Council in Chapters 51-56 WAC, excluding Chapter 1, "Administration," is adopted, together with Appendix C "Alternate Plumbing Systems" excluding Sections C5.0 through C7.0; and excluding "Lawn Sprinkler Heads" from Table 610.3 and Table 610.4; and shall be applicable within the city, as amended, added to and excepted in this chapter.

23.60.020 Scope.

The provisions of the 2012 Uniform Plumbing Code shall apply to the installation, alteration, repair and replacement of plumbing systems, including equipment, appliances, fixtures, fittings and appurtenances, and where connected to a water or sewage system and all aspects of a medical gas system. Where there is a conflict between the Uniform Plumbing Code and Bellevue City Code Title 24 (Utilities Codes) or utilities engineering standards related to water, sewer or storm drain improvements located more than 24 inches outside a building, the city of Bellevue utilities codes and standards shall prevail.

23.60.030 Amendments, additions, or exceptions to the 2012 International Plumbing Code.

Pursuant to RCW 19.27.060, the following contains amendments, additions, or exceptions to the International Plumbing Code are applicable and enforceable within the city.

23.60.1101.11.2.2(B) Uniform Plumbing Code Section 1101.11.2.2(B) amended – Combined system.

Uniform Plumbing Code Section 1101.11.2.2(B) is hereby amended to read as follows:

1101.11.2.2(B) Combined System. The secondary roof drains shall connect to the vertical piping of the primary storm drainage system conductor downstream of any horizontal offset below the roof. The primary storm drainage system shall connect to the building storm water that connects to an underground public storm sewer. The combined secondary and primary roof drain systems shall be sized in accordance with Section 1106.0 based on double the rainfall rate for the local area. A relief drain shall be connected to the vertical drain piping, within 20 feet of grade, using a wye-type fitting piped to daylight on the exterior of the building. The piping shall be sized as required for a secondary drain with a 4 inch maximum.

Section 11. This ordinance shall take effect and be in force five (5) days after its adoption and legal publication.

ORIGINAL

Passed by the City Council this 17th day of June, 2013,
and signed in authentication of its passage this 17th day of June,
2013.

(SEAL)

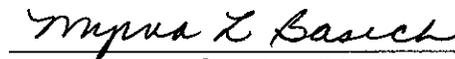

Conrad Lee, Mayor

Approved as to form:

Lori M. Riordan, City Attorney


Monica A. Buck, Assistant City Attorney

Attest:


Myrna L. Basich, City Clerk

Published June 20, 2013