1173-ORD 06/17/10

## ORIGINAL

# ORDINANCE NO. \_\_\_\_\_

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; amending Chapter 23.10 to reflect amendments to state building codes; amending Chapter 23.16 to reflect amendments to swimming pool enclosures; amending Chapter 23.50 to reflect amendments to state mechanical codes; amending Chapter 23.60 to reflect amendments to state plumbing and related codes, adding Chapter 23.12 to adopt certain provisions of the International Residential Code; 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;

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current provisions of the Bellevue City Code adopt and rely upon various state and national codes, which have been superseded by statewide amendments (2009 editions); and

WHEREAS, the 2009 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. Sections 23.05.090.B.3, 23.05.090.D.3, 23.05.090.H.3 of the Believue City Code are hereby amended to read as follows:

#### 23.05.090.B.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 m<sup>2</sup>).
- 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.
- I. 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.

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#### 23.05.090.H Time Limitation of Application.

- 1. Applications for which no permit is issued within one year following the date of application shall expire by limitation and plans and other data submitted for review may thereafter be returned to the applicant or destroyed in accordance with state law by the building official. The building official may, prior to expiration, extend the time for action by the applicant for a period not exceeding 180 days.
- 2. Applications may be canceled for inactivity if an applicant fails to respond to the department's written request for revisions, corrections, actions or additional information within 90 days of the date of request. The building official may extend the response period beyond 90 days if, within the original 90-day time period, the applicant provides and subsequently adheres to an approved schedule with specific target dates for submitting the full revisions, corrections or other information needed by the department.
- 3. In addition to the extension allowed in subsection (H)(1) of this section, the building official may extend the life of an application if any of the following conditions exist:
- a. Compliance with the State Environmental Policy Act is in progress; or
- b. Any other city review is in progress; provided the applicant has submitted a complete response to city requests or the building official determines that unique or unusual circumstances exist that warrant additional time for such response, and the building official determines that the review is proceeding in a timely manner toward final city decision; or

c. Litigation against the city or the applicant is in progress, the outcome of which may affect the validity or the provisions of any permit issued pursuant to such application.

In no event may the building official extend the application for a period of more than 180 days following the conclusion of the applicable condition described in this subsection (H)(3).

Section 2. Section 23.05.100.E of the Bellevue City Code is hereby amended to read as follows:

#### 23.05.100.E Expiration of Permit.

E. Expiration of Permit.

- 1. Every permit issued by the building official under the provisions of this chapter shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within one year from the date of such permit issuance, or if work authorized by the issued permit is suspended or abandoned for a period of 180 days or more, after the work is commenced. The building official may extend single-family permits that have expired under this section for additional periods of up to 180 days at his sole discretion, provided:
- a. No significant changes have or will be made to the originally-approved plans and specifications for the approved work; and
- b. No permit shall be extended past the maximum limit stated in subsection 2 from the date of permit issuance.
- 2. Permits issued under which work is started and continuously performed, and the necessary periodic inspections are made, such that the permit does not expire according to subsection 1 above, shall expire by limitation and become null and void three years from the date of such permit issuance, except that the building official may grant single-family permits one extension of up to 90 days at his sole discretion.
- 3. For permits other than single-family permits, when only the final inspection approval is remaining and all other work has been approved, the building official may grant one ninety-day extension of time past the expiration date for permits stated in subsection 1 or 2 to allow the final inspection to occur.
- 4. The time extensions provided in this section shall not apply to any properties that are the subject of an active request for voluntary compliance or civil violation proceeding under Chapter 1.18 BCC.

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Section 3. 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 180-29, 246B-320, and 388-97 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; or
  - d. As required by the building official for installations which by their nature are complex, hazardous or pose unique design problems.
- 3. Building enclosure design requirements of Chapter 64.55 RCW. Building enclosure design documents of new or rehabilitated multifamily buildings that are subject to regulations of Chapter 64.55 RCW must be submitted at the time of permit application. All applications for building construction or rehabilitation shall include design documents prepared and stamped by an architect or engineer that identify the building enclosure (building enclosure documents), including but not limited to, waterproofing, weather proofing and/or otherwise protected from water or moisture intrusion, unless a recorded irrevocable sale prohibition covenant is submitted to the City. The City is prohibited from issuing a permit for construction or rehabilitative construction unless the building enclosure documents contain a stamped statement by the person stamping the

building enclosure design documents in substantially the following form, "The undersigned has provided building enclosure documents that in my professional judgment are appropriate to satisfy the requirements of sections 1 through 10 of Chapter 64.55 RCW. The City is not responsible for determining whether the building enclosure design documents or the inspections performed are adequate or appropriate to satisfy the requirements of Chapter 64.55 RCW.

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Section 4. Section 23.05.140.A of the Bellevue City Code is hereby amended to read as follows:

#### 23.05.140.A Use and occupancy.

No building or structure shall be used or occupied, and no change in the existing occupancy classification of a building or structure or portion thereof shall be made until the building official has issued a certificate of occupancy therefor as provided herein. Issuance of a certificate of occupancy shall not be construed as an approval of a violation of the provisions of this chapter, the technical codes, or of other ordinances of the city. Certificates presuming to give authority to violate or cancel the provisions of this chapter, the technical codes or other ordinances of the city shall not be valid.

#### Exception:

For single family dwellings and their accessory structures, the issued building permit inspection record shall serve as the certificate of occupancy when the final inspection has been approved by the building official or the building official's designee.

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Section 5. Chapter 23.10 of the Bellevue City Code is hereby amended 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 2009 International Building Code.
23.10.403	International Building Code Table 403(1) Added – Standby (Legally Required) and Emergency Power.
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.
23.10.403.4.8	International Building Code Section 403.4.8 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	<b>y</b>
	International Building Code Section 405.8Amended – Standby Power.
23.10.405.9	International Building Code Section 405.9 Amended – Emergency power.
23.10.503	International Building Code Table 503 Amended Allowable
20.10.000	Height and Building Areas.
23.10.708.2	International Building Code Section 708.2 Amended Shaft
	Enclosure Required.
23.10.708.14.1	International Building Code Section 708.14.1 Amended
25	Elevator Lobby.
23.10.708.14.2.1	International Building Code Section 708.14.2.1Amended –
20.10.100.11.2.1	Pressurization Requirements.
23.10.708.14.2.3	International Building Code Section 708.14.2.3 Amended – Duct
20.10.100.11.2.0	for System.
23.10.708.14.2.4.4	· · · · · · · · · · · · · · · · · · ·
	Fan Capacity.
23.10.806.1	International Building Code Section 806.1 Amended – General
00.40.000.0	requirements.
23.10.903.2	International Building Code Section 903.2 Amended – Where required.
23.10.903.2.1	International Building Code Section 903.2.1 Amended – Group
	A.
23.10.903.2.11	International Building Code Section 903.2.11Amended -
	Automatic fire extinguishing systems.
23.10.903.3.1.1.1	International Building Code Section 903.3.1.1.1 Amended –
20.10.000.0.1.1.1	Exempt locations.
23.10.903.3.1.1.2	International Building Code Section 903.3.1.1.2 Amended - High
20.10.000.0.1.1.2	Rise Building Sprinkler System Design.
23.10.903.3.1.4	International Building Code Section 903.3.1.4 Added – Fire
20.10.000.0.1.4	Pump Boosted System Design.
23.10.903.3.3	International Building Code Section 903.3.3 Amended –
20.10.300.0.0	Obstructed locations.
23.10.903.3.5.2	International Building Code Section 903.3.5.2 Amended -
20.10.000.0.0.2	Secondary Water Source.
23.10.903.4.2	International Building Code Section 903.4.2 Amended – Alarms.
20.10.300. <del>4</del> .2	international building Code Section 300.4.2 Amerided - Alaims.

23.10.903.4.3	International Building Code Section 903.4.3 Amended – Floor
23.10.905.3	control valves. International Building Code Section 905.3 Amended to add new subsection 905.3.8 – High-rise building standpipes.
23.10.905.3.1 23.10.905.3.3	International Building Code Section 905.3.1 Amended – Height.  International Building Code Section 905.3.3 Amended –
	Covered mall buildings.
23.10.905.3.4 23.10.905.3.4.1	International Building Code Section 905.3.4 Amended - Stages. International Building Code Section 905.3.4.1 Deleted - Hose
23.10.905.4	and cabinet.  International Building Code Section 905.4 Amended – Location of Class Letendrine bear connections.
23.10.905.8	of Class I standpipe hose connections. 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 Not Adopted - 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 Emergency voice/alarm communication systems.
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 – 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.
23.10.909.20	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.
23.10.909.20.6.1	International Building Code Section 909.20.6.1 Amended – Ventilation System.

23.10.909.20.6.3	International Building Code Section 909.20.6.3 Amended – Acceptance and Testing.
23.10.911.2	International Building Code Section 911.2 Added Penetrations
23.10.912.4	International Building Code Section 912.4 Amended – Signs.
23.10.1006.3	International Building Code Section 1006.3 Amended –
	Illumination emergency power.
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
25.10.1012.4	and construction.
23.10.1613.1	International Building Code Section 1613.1 Amended – Scope.
23.10.1704.14	International Building Code Section 1704.14 Amended –
00.40.0000.4	Exterior Insulation and Finish Systems (EIFS).
23.10.3002.4	International Building Code Section 3002.4 Amended – Elevator
00.40.000	car to accommodate ambulance stretcher.
23.10.3007.4	International Building Code Section 3007.4 Amended – Fire
	service access elevator lobby.
23.10.3007.5	International Building Code Section 3007.5 Amended –
	Standpipe hose connection.
23.10.3007.7	International Building Code Section 3007.7 Amended -
	Electrical power.
23.10.3007.8	International Building Code Section 3007.8 Amended – Water
	protection.
23.10.3008.11.2	International Building Code Section 3008.11.2 Amended –
	Lobby enclosure.
23.10.3008.12	International Building Code Section 3008.12 Amended – Lobby
	status indicator.
23.10.3008.15	International Building Code Section 3008.15 Amended –
	Electrical power.
23.10.3304.1	Bellevue City Code Section 3304.1 Amended – Excavation and
20.101000	Fill.
23.10.3306.1	International Building Code Table 3306.1 Amended – Protection
_3	of Pedestrians.
23.10.3306.2	International Building Code Section 3306.2 Amended –
20.10.0000.2	Walkways.
	vvaikways.

Section 6. Section 23.10.010 of the Bellevue City Code is hereby amended to read as follows:

#### 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 of this code, are adopted and shall be applicable within the city:

#### A. International Building Code.

- 1. Code Adoption. The 2009 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 2009 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 2009 International Existing Building Code is included in the adoption of this code in Section 3401.5 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. Washington State Energy Code.

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

#### C. Abatement of Dangerous Building Code.

- 1. Code Adoption. The 1997 edition of the Uniform Code for the Abatement of Dangerous Buildings Code 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 Code 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 as 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, and suitably marked to indicate amendments, additions, deletions and exceptions as provided in this chapter, shall be filed in the city clerk's office and be available for use and examination by the public.

Section 7. Section 23.10.015 of the Bellevue City Code is hereby amended to read as follows:

### 23.10.015 Amendments, Additions, or Exceptions to the 2009 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.

Section 8. Section 23.10.403 of the Bellevue City Code is hereby amended to read as follows:

## 23.10.403 International Building Code Table 403(1) Added – Standby (Legally Required) and Emergency Power.

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 Systems 1	Louis	\ \Daration	d	
Exit signs	10 seconds	2 hours for generator power; or 90 minutes for battery backup.	1011.5.3	604.2.14 High rises 604.2.15 Underground buildings 1011.5.3 Exit signs 2403.12.6.1 Temporary tents, canopies. membrane structures NFPA 70
Exit illumination	10 seconds	8 hours	1006.3	1006.3 604.2.14 High rises

Type of equipment	Maximum Time to Energize   Loads   Minimum Run Time (Duration)		IBC Section	IFC or NFPA Section		
Emergency Power Systems 1	Loudo	1Daiation <sub>1</sub>	<u> </u>			
				604.2.15 Underground buildings		
Any emergency voice/alarm communication including area of refuge communication systems (barrier-free & horizontal exits)	NFPA 72	24 hours	402.15 & 907.5.2.2 Covered mall buildings 403.4.8 & 907.5.2.2 High rises 405.9.1.1 & 907.5.2.2 Underground buildings 907.2.1.1 Assembly occupancies	604.2.13 Covered mall buildings 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	403.4.8 High rises 405.9 Underground buildings 909.20.6.2 Smokeproof enclosures 907	604.2.14 High rises 604.2.15 Underground buildings 907.2.11 NFPA 72		
Smoke control systems in high-rise buildings, underground buildings and covered mall buildings including energy management systems is 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 & underground buildings	10 seconds	8 hours (NFPA 20)	403.4.8 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	716			
Elevator car operation in high-rise & underground buildings (including control system, motor controller, operation control, signal equipment, machine room cooling/heating, etc.)	60 seconds	4 hours	3003	604.2.14 High rises 604.2.15 Underground buildings		
Elevator car lighting and communications in high-rise & underground buildings	10 seconds	4 hours	3003	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 Standby <sup>1</sup>						
Pressurization equipment for low- rise buildings	60 seconds	4 hours	909 909.20			
Exhaust fans for any loading dock located interior to a building	60 seconds	4 hours				
Operation of elevators used as accessible means of egress in low-rise buildings (including car lighting, communications, control system, motor controller, operation control, signal equipment, machine room cooling/heating, etc.)	60 seconds	4 hours	1007.4 & 1007.5 3003	604.2.18 Elevators 1007.4 & 1007.5		
Fire pumps in low-rise buildings Transformer vault ventilation	10 seconds 60 seconds	8 hours 4 hours		913.2 and NFPA 20		
equipment						
Heat tape for sprinkler lines & heating in sprinkler riser rooms	60 seconds	24 hours				
Fuel pump system for any legally- required system	60 seconds	4 hours				
Sewage disposal pumps	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.

Section 9. Section 23.10.403.3.1 of the Bellevue City Code is hereby amended to read as follows:

### 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:
  - For buildings not greater than 420 feet (128 m) in building height, the fireresistance 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.

Section 10. Section 23.10.403.10 of the Bellevue City Code is hereby amended to read as follows:

### 23.10.403.4.7 International Building Code Section 403.4.7 Amended -- Standby Power.

International Building Code Section 403.4.7 is hereby amended to read as follows:

- 403.4.7 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.
- 403.4.7.1 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 403.4.7.1.1 and 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.

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.

Section 11. Section 23.10.403.4.7.1 of the Bellevue City Code is hereby adopted to read as follows:

### 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.

International Building Code Section 403.4.7.1. is hereby amended to add a new section 403.4.7.1.1 as follows:

403.4.7.1.1 *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.

Section 12. Section 23.10.403.4.7.2 of the Bellevue City Code is hereby amended to read as follows:

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

Section 13. Section 23.10.403.11 of the Bellevue City Code is hereby amended to read as follows:

## 23.10.403.4.8 International Building Code Section 403.4.8 Amended – Emergency power loads.

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

403.4.8 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.

403.4.8.1 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 more than 75 feet above the lowest level of Fire Department vehicle access, require the approval of the fire code official.

Section 14. Section 23.10.403.4.8.2 of the Bellevue City Code is hereby adopted to read as follows:

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

Section 15. Section 23.10.403.5 of the Bellevue City Code is hereby adopted to read as follows:

### 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 23.11.907.6.2.2.5, which requires either Phased Evacuation, an additional stair, or occupant evacuation elevators, to facilitate simultaneous building evacuation and firefighter response into the building.

Section 16. Section 23.10.403.15 of the Bellevue City Code is hereby amended to read as follows:

### 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.

Section 17. Section 23.10.405.1 of the Bellevue City Code is hereby amended to read as follows:

#### 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.
- 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.

Section 18. Section 23.10.405.9 of the Bellevue City Code is hereby amended to read as follows:

### 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).

Section 19. Section 23.10.405.10 of the Bellevue City Code is hereby amended to read as follows:

### 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).

Section 20. Section 23.10.503 of the Bellevue City Code is hereby amended to read as follows:

## 23.10.503 International Building Code Table 503 Amended – Allowable Height and Building Areas.

International Building Code Table 503, Allowable Height and Building Areas, is amended to read as follows:

### TABLE 503 ALLOWABLE BUILDING HEIGHTS AND AREAS<sup>a</sup>

Building height limitations shown in feet above grade plane.
Story limitations shown as stories above grade plane.
Building area limitations shown in square feet, as determined by the definition of "Area, building," per story.

	T	TYPE OF CONSTRUCTION									
	Ì	TY	PE I	TY	TYPE III TYPE III			TYPE IV	TYPE V		
		Α	В	Α	В	Α	В	нт	Α	В	
	HEIGHT (feet)	UL	160	65	55	65	55	65	50	40	
GROUP						RIES (S) EA (A)					
A-1	S	UL	5	3	2	3	2	3	2	1	
	A	UL	UL	15,500	8,500	14,000	8,500	15,000	11,500	5,500	
<b>A</b> -2	S	UL.	11	3	2	3	2	3	2	1	
	A	UL	UL	15,500	9,500	14,000	9,500	15,000	11,500	6,000	
A-3	S	UL	11	3	2	3	2	3	2	1	
	A	UL	UL.	15,500	9,500	14,000	9,500	15,000	11,500	6,000	
Α4	S A	UL.	11 UL	3 15,500	2 9,500	3 14,000	2 9,500	3 15,000	2 11,500	1 6,000	
A-5	S	UL UL	UL UL	UL UL	UL UL	UL UL	UL UL	UL UL	UL UL	UL UL	
В	S	UL	11	5	3	5	3	5	3 <sup>e</sup>	2	
	A	UL	UL	37,500	23,000	28,500	19,000	36,000	18,000	9,000	
E	S	UL	5	3	2	3	2	3	1	1	
	A	UL	UL	26,500	14,500	23,500	14,500	25,500	18,500	9,500	
F-1	S	UL	11	4	2	3	2	4	2	1	
	A	UL	UL	25,000	15,500	19,000	12,000	33,500	14,000	8,500	
F-2	S	UL	11	5	3	4	3	5	3	2	
	A	UL	UL	37,500	23,000	28,500	18,000	50,500	21,000	13,000	
H-1	S	1	1	1	1	1	1	1	1	NP	
	A	21,900	16,500	11,000	7,000	9,500	7,000	10,500	7,500	NP	
H-3q	S	UL	3	2	1	2	1	2	1	1	
	A	21,000	16,500	11,000	7,000	9,500	7,090	10,500	7,500	3,000	
H-3d	S	UL	6	4	2	4	2	4	2	1	
	A	UL	60,000	26,500	14,000	17,500	13,000	25,500	10,000	5,000	
E-4	S	UL	7	5	3.	5	3	5	3	2	
	A	UL	UL	37,500	17,500	28,500	17,500	36,000	18,000	6,500	
H-5	S A	4 UL	4 UL	3 37,500	3 23,000	3 28,500	3 19,000	36,000	3 18,000	2 9,000	
I-1 .	S	UL	9	4	3	4	3	4	3	2	
	A	UL	55,700	19,000	10,000	16,500	10,000	18,000	10,500	4,500	
1-2	S	UL	4	2	1	1	NP	1	1	NP	
	A	UL	UL	15,000	11,000	12,000	NP	12.000	9,500	NP	
1-3	S	UL	4	2	1	2	1	2	2	1	
	A	UL	UI.	15,000	10,000	10,500	7,500	12,000	7,500	5,000	
1-4	S	UL	5	3	2	3	2	3	1	1	
	A	UL	60,500	26,500	13,000	23,500	13,000	25,500	18,500	9,000	
М	S A	UL UL	11 UL	4 21,500	2 12,500	<i>4</i> 18,500	2 12,500	4 20,500	3 14,000	9,000	
R-1	S	UL	าว	4	<i>4</i>	4	4	4	3 <sup>e</sup>	2	
	A	UL	บะ.	24,000	16,000	24,000	16,000	20,500	12,000	7,000	

### TABLE 503 ALLOWABLE BUILDING HEIGHTS AND AREAS<sup>a</sup>

Building height limitations shown in feet above grade plane.

Story limitations shown as stories above grade plane.

Building area limitations shown in square feet, as determined by the definition of "Area, building," per story.

			TYPE OF CONSTRUCTION									
		TY	YPE I	TYPE II		TYPE III		TYPE IV	TYPE V			
		Α	В	Α	В	Α	В	HT	Α	В		
GROUP	HEIGHT (feet)	UL	160	65	55	65	55	65	50	40		
R-2	S	UL	11	4	4	4	4	4	3 <sup>e</sup>	2		
	A	UL	UL.	24,000	16,000	24,000	16,090	20,500	12,000	7,000		
R-3	S	UL	11	4	4	4	4	4	3	3		
	A	UL	UL	UL	UL	UL	UL	UL	UL	UL		
R-4	S	UL	11	4	4	4	4	4	3	2		
	A	UL	UL	24,000	16,000	24,000	16,000	20,500	12,000	7,000		
S-1	S	UL	11	4	2	3	2	4	3	1		
	A	UL	48,000	26,000	17,500	26,000	17,500	25,500	14,000	9,000		
s-2 <sup>b,c</sup>	S	UL	11	5	3	4	3	5	4	2		
	A	UL	79,000	39,000	26,000	39,000	26,000	38,500	21,000	13,500		
υc	S	UL	5	4	2	3	2	4	2	1		
	A	UL	35,500	19,000	8,500	14,000	8,500	18,000	9.000	5,500		

For SI: 1 foot = 304.8 mm, 1 square foot =  $0.0929 \text{ m}^2$ .

A = building area per story, S = stories above grade plane, UL = Unlimited, NP = Not permitted.

- a. See the following sections for general exceptions to Table 503:
  - 1. Section 504.2. Allowable height increase due to automatic sprinkler system installation.
  - 2. Section 506.2. Allowable area increase due to street frontage.
  - 3. Section 506.3, Allowable area increase due to automatic sprinkler system installation.
  - 4. Section 507, Unlimited area buildings.
- b. For open parking structures, see Section 406.3.
- c. For private garages, see Section 406.1.
- d. See Section 415.5 for limitations.
- e. For Group B, Group R, Division 1 and Division 2 Occupancies, the permitted increase of one story allowed by Section 504.2 may be increased to two stories when all of the following conditions are met:
- 1. An automatic fire-extinguishing system complying with Section 903.3.1.1 (NFPA 13) is installed throughout with the installation of quick-response sprinkler heads in all areas where the use of these heads is allowed by NFPA 13.
- 2. Vertical exit enclosures are constructed as pressurized stair enclosures in accordance with Section 909.20.5.
- 3. Standby power is supplied for light, emergency, and any exit enclosure pressurization systems used, as provided in Table 403(1) and 909.20.6.2, and the adopted edition of NFPA 70 (National Electrical Code). The Igenerator and automatic transfer switch shall be separated from the rest of the building by 1-hour fire-resistive construction.
- 4. Fire Department access shall be in accordance with the International Fire Code, 2009 Edition, and the Bellevue Fire Department Development Standards.
  - 5. Structural Observation is provided during construction in accordance with Sections 1702 and 1710.

Section 21. Section 23.10.707.2 of the Bellevue City Code is hereby amended as follows:

## 23.10.708.2 International Building Code Section 708.2 Amended -- Shaft Enclosure Required.

International Building Code Section 708.2, Exception 2.1 is hereby amended to read as follows:

Exception 2.1. Where the area of the floor opening between stories does not exceed twice the horizontal projected area of the escalator or stairway and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13, floor openings may connect not more than six stories in Group M occupancies, and in other than Group M occupancies, floor openings may connect not more than four stories in buildings not required to have smoke control systems, and not more than two stories in buildings required to have smoke control systems, except as allowed for atriums.

Section 22. Section 23.10.707.14.1 of the Bellevue City Code is hereby amended as follows:

### 23.10.708.14.1 International Building Code Section 708.14.1 Amended -- Elevator lobby.

International Building Code Section 708.14.1 is hereby amended as follows:

708.14.1 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 709 for fire partitions, doors protecting openings in the elevator lobby enclosure walls shall also comply with Section 715.4.3 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 716.5.4.1. 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 street floor, provided the entire street floor 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 708.2 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 be 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 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 711 for smoke partitions, doors protecting openings in the smoke partitions shall also comply with Sections 711.5.2, 711.5.3, and 715.4.8, and duct penetrations of the smoke partitions shall be protected as required for corridors in accordance with Section 716.5.4.1.
- 6. Enclosed elevator lobbies are not required where the elevator hoistway is pressurized in accordance with Section 708.14.2 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 406.3.

Section 23. Section 23.10.707.14.2.1 of the Bellevue City Code is hereby amended as follows:

### 23.10.708.14.2.1 International Building Code Section 708.14.2.1 Amended – Pressurization requirements.

International Building Code Section 708.14.2.1 is hereby amended as follows:

708.14.2.1 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.

Section 24. Section 23.10.707.14.2.2 of the Bellevue City Code is hereby amended as follows:

### 23.10.708.14.2.3 International Building Code Section 708.14.2.3 Amended – Ducts for system.

International Building Code Section 708.14.2.3 is hereby amended to read as follows:

708.14.2.3 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 in accordance with IBC Section 909.20.6.1. Ducts shall be in accordance with Section 909.10.2.

Section 25. Section 23.10.707.14.2.3.4 of the Bellevue City Code is hereby amended as follows:

## 23.10.708.14.2.4.4 International Building Code Section 708.14.2.4.4 Amended – Fan capacity.

International Building Code Section 708.14.2.4.4 is hereby amended to read as follows:

708.14.2.4.4 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.

**23.10.902.1 International Building Code Section 902.1 amended – Definitions.** International Building Code Section 902.1 is hereby amended to include the following additional definition:

**[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.

Section 26. Section 23.10.903.2.1 of the Bellevue City Code is hereby adopted as follows:

#### 23.10.903.2.1 International Building Code Section 903.2.1 amended – Group A.

International Building Code Section 903.2.1 is hereby amended by the addition of a new subsection 903.2.1.6 to read as follows:

**903.2.1.6 Nightclub.** An automatic sprinkler system shall be provided in accordance with 903.1.1 throughout an occupancy with a nightclub as defined by WAC 51-54-0200.

Section 27. Section 23.10.903.2.10 of the Bellevue City Code is hereby amended as follows:

### 23.10.903.2.11 International Building Code Section 903.2.11 – Specific building areas and hazards.

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

- **903.2.11 All occupancies.** In all occupancies except Groups R-3 and 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 903.2.11.6.
- **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 m<sup>2</sup>) 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).
- **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 fire fighting 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, 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 extending through three or more floors shall have additional sprinkler

heads installed within such chutes at alternate floors. Chute sprinklers shall be accessible for servicing.

**903.2.11.3 Buildings of four or more stories in height.** An automatic sprinkler system shall be installed throughout buildings four or more stories in height.

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.

Section 28. Section 23.10.903.3.1.1.1 of the Bellevue City Code is hereby amended as follows:

### 23.10.903.3.1.1.1 International Building Code Section 903.3.1.1.1 – Exempt locations.

International Building Code Section 903.1.1.1 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.

Section 29. Section 23.10.903.3.1.1.2 of the Bellevue City Code is hereby amended as follows:

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

International Building Code Section 903.3.1.1 is hereby 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.

Section 30. Section 23.10.903.5.2 of the Bellevue City Code is hereby amended as follows:

## 23.10.903.3.5.2 International Building Code Section 903.3.5.2 – 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-2 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.

Section 31. Section 23.10.903.4.2 of the Bellevue City Code is hereby amended as follows:

#### 23.10.903.4.2 International Building Code Section 903.4.2 – Alarms.

International Building Code Section 903.4.2 is hereby amended to read as follows:

**903.4.2 Alarms**. Approved audible and visible alarm notification appliances shall be provided for every new or substantially altered automatic sprinkler system in accordance with Section 907 and throughout areas designated by the Fire Code Official. Sprinkler water-flow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Alarm devices shall be provided on the exterior of the building in an approved location. Where a fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system.

Section 32. Section 23.10.903.4.3 of the Bellevue City Code is hereby amended as follows:

### 23.10.903.4.3 International Building Code Section 903.4.3 – 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.

Section 33. Section 23.10.905.3 of the Bellevue City Code is hereby amended as follows:

### 23.10.905.3 International Building Code Section 905.3 – High-rise building standpipes.

International Building Code Section 905.3 is hereby amended by the addition of a new subsection 905.3.8 to read as follows:

**905.3.8 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 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.

Point of Information:

Additional flow and pressure requirements are contained in NFPA 14. Designers should be cognizant of space considerations within stair shafts and additional signage needed for the PRV by-pass control valves. For city wide uniformity, the City of Bellevue desires the PRV settings to be such that the required flow is available at 150psi. However, a range of up to 175psi is provided to allow for design flexibility.

Section 34. Section 23.10.905.3.1 of the Bellevue City Code is hereby adopted to read as follows:

#### 23.10.905.3.1 International Building Code Section 905.3.1 – Height.

International Building Code Section 905.3.1 is hereby amended to read as follows:

**23.10.905.3.1 Height.** Class I 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 the 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. In determining the lowest level of fire department vehicle access, it shall not be required to consider:
  - 1.1. Recessed loading docks for four vehicles or less, and
  - 1.2. Conditions where topography makes access from the fire department vehicle to the building impractical or impossible.

Section 35. Section 23.10.905.3.3 of the Bellevue City Code is hereby adopted to read as follows:

## 23.10.905.3.3 International Building Code Section 905.3.3 – Covered mall buildings.

International Building Code 905.3.3 is hereby amended to read as follows:

**905.3.3 Covered mall buildings.** A covered mall building shall be equipped throughout with a Class I standpipe system with hose connections 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.
- 4. 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.

Section 36. Section 23.10.905.3.4 of the Bellevue City Code is hereby adopted to read as follows:

#### 23.10.905.3.4 International Building Code Section 905.3.4 Stages.

International Building Code Section 905.3.4 is hereby deleted.

#### 23.10.905.3.4.1 International Building Code Section 905.3.4.1 Hose and cabinet.

International Building Code Section 905.3.4.1 is hereby deleted.

Section 37. Section 23.10.905.4 of the Bellevue City Code is hereby amended to read as follows:

## 23.10.905.4 International Building Code Section 905.4 – 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*.
  - **Exception:** Where floor areas adjacent to a horizontal *exit* are reachable from *exit stairway* hose connections by a 30-foot (9144 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*.
- 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 (9144 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 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 (3048 mm) from the roof edge, skylight, light well or other similar openings, unless protected by a 42-inch-high (1067 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.

Section 38. Section 23.10.907.2.12 of the Bellevue City Code is hereby amended to read as follows:

### 23.10.907.2.13.1 International Building Code Section 907.2.13.1– Area smoke detection.

International Building Code Section 907.213.1 is hereby amended to read as follows:

- **907.2.13.1 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 operate the emergency voice/alarm communication system in accordance with Section 907.6.2.2. Smoke detectors (Where such locations are within unconditioned spaces, other devices may be installed in accordance with 907.5.3) shall be located as follows:
- 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.

Section 39. Section 23.10.907.2.13.2 of the Bellevue City Code is hereby adopted to read as follows:

### 23.10.907.2.13.2 International Building Code Section 907.2.13.2 – 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 508, 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*.

Section 40. Section 23.10.907.2.18.1 of the Bellevue City Code is hereby amended to read as follows:

### 23.10.907.2.18.1 International Building Code Section 907.2.18.1 – 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 (<u>where such locations are within unconditioned spaces</u>, <u>other devices may be installed in accordance with 907.5.3.</u>) 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.

Section 41. Section 23.10.907.6 of the Bellevue City Code is hereby amended to read as follows:

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

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

- **907.5 Occupant notification system.** A fire alarm system shall annunciate at the panel and shall initiate occupant notification upon activation, in accordance with Section 907.5.1 through 907.5.2.3.4. Where an alarm notification system is required by another section of this code, it shall be activated by:
- 1. Automatic heat and smoke detectors, other than duct smoke detectors, and smoke alarms located inside dwelling units and sleeping units.
- 2. Sprinkler water-flow devices.
- 3. Manual fire alarm boxes.
- 4. Any other fire suppression system installed within the building.

Section 42. Section 23.10.907.5.2.1.1 of the Bellevue City Code is hereby adopted to read as follows:

## 23.10.907.5.2.1.1 International Building Code Section 907.5.2.1.1 - 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.

Section 43. Section 23.10.907.5.2.2 of the Bellevue City Code is hereby adopted to read as follows:

## 23.10.907.5.2.2 International Building Code Section 907.5.2.2 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 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.

#### 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 power.

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

#### 907.5.2.2.5 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 is 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.

Section 44. Section 23.10.907.8.1 of the Bellevue City Code is hereby amended to read as follows:

### 23.10.907.6.3.1 International Building Code Section 907.6.3.1 – 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.

Section 45. Section 23.10.909.4.6 of the Bellevue City Code is hereby adopted to read as follows:

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

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

**23.10.909.4.6 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 the emergency generator shall have fuel capacity for no less than a 2-hour run time.

Section 46. Section 23.10.909.10.2 of the Bellevue City Code is hereby adopted to read as follows:

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

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

**23.10.909.10.2 Ducts,** <u>including shafts acting as ducts</u>. 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 and which are constructed of approved fire-resistance-rated materials.

Section 47. Section 23.10.909.10.3 of the Bellevue City Code is hereby amended to read as follows:

### 23.11.909.10.3 International Building Code Section 909.10.3 – 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.** 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 so as to minimize the potential for introducing smoke or flame into the building.

Section 48. Section 23.10.909.11 of the Bellevue City Code is hereby amended to read as follows:

### 23.10.909.11 International Building Code Section 909.11 Amended – Power systems.

International Building Code Section 909.11 is hereby amended 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 systems. 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 room separate from the normal power transformers and switch gears and ventilated directly to and from the exterior. The room shall be enclosed with not less than 1-hour fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 712, or both, except 2-hour fire-rating 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. 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).

Section 49. Section 23.10.909.20 of the Bellevue City Code is hereby adopted to read as follows:

### 23.10.909.20 International Building Code Section 909.20 Amended – Smokeproof enclosures.

International Building Code Section 909.20 is hereby amended as follows:

909.20 Smokeproof enclosures. Where required by Section1022.9, 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 1022.1 and an outside balcony or ventilated vestibule meeting the requirements of this section. Where access to the roof is required by the *International Fire Code*, such access shall be from the smokeproof enclosure where a smokeproof enclosure is required.

Section 50. Section 23.10.909.20.5 of the Bellevue City Code is hereby amended to read as follows:

## 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 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 inch of water (37 Pa) and a maximum of 0.35 inch of water (87 Pa) in the shaft relative to the building measured with all stairway doors closed under maximum anticipated stack pressures. The pressure difference across doors shall not exceed 30 lbs (133-N) maximum force to begin opening the door.

Section 51. Section 23.10.909.20.6.1 of the Bellevue City Code is hereby deleted.

Section 52. Section 23.10.911.2.1 of the Bellevue City Code is hereby adopted to read as follows:

#### 23.10.911.2 International Building Code Section 911.2 Added - Penetrations

International Building Code Section 911.2 is hereby added as follows:

911.2 Penetrations. Penetrations into and openings through a fire command center are prohibited except for required exit doors, equipment and ductwork necessary for independent pressurization, 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 713

Exception: Metallic piping with no joints or openings.

Section 53. Section 23.10.1006.3 of the Bellevue City Code is hereby amended to read as follows:

# 23.10.1006.3 International Building Code Section 1006.3 Amended – Illumination emergency power.

International Building Code Section 1006.3 is hereby amended as follows:

1006.3 Illumination emergency power. 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, exit enclosures 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, 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).

Section 54. Section 23.10.1608.1 of the Bellevue City Code is hereby deleted:

Section 55. Section 23.10.1612.3 of the Bellevue City Code is hereby adopted to read as follows:

## 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 [September 28, 2007], 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."

Section 56. Section 23.10.1612.4 of the Bellevue City Code is hereby adopted to read as follows:

## 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, Title 20.25H.175.

Section 57. Section 23.10.1613.1 of the Bellevue City Code is hereby amended to read as follows:

**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, Ss, is less than 0.4 g.
- 2. The seismic-force-resisting system 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. Earthquake protection for automatic sprinkler systems when hanging, bracing, and restraint is designed and installed in accordance with the 2010 edition of NFPA 13.

Section 58. Section 23.10.1704.1 of the Bellevue City Code is hereby deleted:

Section 59. Section 23.10.1704.12 of the Bellevue City Code is hereby amended to read as follows:

# 23.10.1704.14 International Building Code Section 1704.14 Amended -- Exterior insulation and finish systems (EIFS).

International Building Code Section 1704.14 is hereby amended to read as follows:

1704.14 Exterior insulation and finish systems (EIFS). Special inspections shall be required for all EIFS applications, to consist of inspection and certification by the manufacturer, or another agency approved by the EIFS manufacturer and the building official, that the system is installed per the EIFS manufacturer's installation specifications.

Exception: When requested in writing by the architect-of-record, and approved by the EIFS manufacturer and the building official, special inspections shall not be required for EIFS applications.

Section 60. Section 23.10.2306.4.1 of the Bellevue City Code is hereby deleted:

Section 61. Section 23.10.3002.4 of the Bellevue City Code is hereby amended to read as follows:

## 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 (610 mm by 2134 mm) 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) high and shall be placed inside on both sides of the hoistway door frame.

Section 62. Section 23.10.3007.4 of the Bellevue City Code is hereby adopted to read as follows:

## 23.10.3007.4 International Building Code Section 3007.4 Amended – Fire service access elevator lobby.

International Building Code Section 3007.4 is hereby amended to read as follows:

**3007.4 Fire service access elevator lobby.** The fire service access elevator shall open into a fire service access elevator lobby in accordance with Section 3007.4.1 through 3007.4.4.

**Exception:** A fire service access elevator lobby is not required where two fire service elevators are provided in accordance with Section 3007 and the hoistway is pressurized in accordance with Section 708.14.2.1 through 708.14.2.11.

Section 63. Section 23.10.3007.5 of the Bellevue City Code is hereby adopted to read as follows:

23.10.3007.5 International Building Code Section 3007.5 Amended – Standpipe hose connection.

International Building Code Section 3007.5 is hereby amended to read as follows: **3007.5 Standpipe hose connection.** A Class I standpipe hose connection in accordance with Section 905 shall be provided in the exit enclosure having direct access from the fire service access elevator lobby, where such lobby is provided.

Section 64. Section 23.10.3007.7 of the Bellevue City Code is hereby adopted to read as follows:

## 23.10.3007.7 International Building Code Section 3007.7 Amended – Electrical power.

International Building Code Section 3007.7 is hereby amended to read as follows:

**3007.7 Electrical power.** The following features serving each fire service access elevator shall be supplied by both normal power and Type 60/Class2/Level 1 standby power:

- 1. Elevator equipment
- 2. Elevator hoistway lighting
- 3. Elevator machine room ventilation and cooling equipment
- 4. Elevator controller cooling equipment.

**3007.7.1 Protection of wiring or cables**. Wires or cables that provide normal and standby power, control signals, communication with the car, lighting, heating, air conditioning, ventilation, and fire-detecting systems to fire service access elevators shall be protected by construction having a minimum 2-hour fire-resistance rating or shall be circuit integrity cable having a minimum 2-hour fire-resistance rating.

Section 65. Section 23.10.3007.8 of the Bellevue City Code is hereby adopted to read as follows:

# 23.10.3007.8 International Building Code Section 3007.8 Amended – Water protection.

International Building Code Section 3007.8 is hereby amended to read as follows:

**3007.8 Water protection.** The Fire Service Access Elevator shall be designed utilizing an approved method to prevent water from the operation of the automatic sprinkler system from infiltrating into the hoistway enclosure.

Section 66. Section 23.10.3008.11.2 of the Bellevue City Code is hereby adopted to read as follows:

## 23.10.3008.11.2 International Building Code Section 3008.11.2 Amended – Lobby enclosure.

International Building Code Section 3008.11.2 is hereby amended to add a subsection 3008.11.2.1 as follows:

**3008.11.2 Lobby enclosure.** The occupant evacuation elevator lobby shall be enclosed with a smoke barrier having a minimum 1-hour fire resistance rating, except that lobby doorways shall comply with Section 3008.11.5.

**Exception**: Enclosed occupant evacuation elevator lobbies are not required at the level(s) of exit discharge.

**3008.11.2.1 Lobby enclosure pressurization.** Enclosure shall be pressurized to the same requirements as attached elevator hoistway. Supplied air may come from elevator hoistway.

Section 67. Section 23.10.3008.12 of the Bellevue City Code is hereby adopted to read as follows:

## 23.10.3008.12 International Building Code Section 3008.12 Amended – Lobby status indicator.

International Building Code Section 3008.12 is hereby amended to add a subsection 3008.12.1 as follows:

- **3008.12 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 reuqir4ements in ASME A17.1/CSA B44
  - 3. No illuminated light or message when the elevators are operating in normal service.
  - **3008.12.1 Location of lobby status indicator.** Visual signals for each elevator group shall be installed on each floor served. They shall be located 2130 mm (84 in) to 3000 mm (120 in) above the floor and centered above a hall call button. Lettering shall be a minimum of 50 mm (2 in) high and conform to A117.1 requirement 703.2.

Section 68. Section 23.10.3008.15 of the Bellevue City Code is hereby adopted to read as follows:

# 23.10.3008.15 International Building Code Section 3008.15 Amended – Electrical power.

International Building Code Section 3008.15 is hereby amended to read as follows:

**3008.15 Electrical power.** The following features serving each occupant evacuation elevator shall be supplied by both normal power and Type 60/Class2/Level 1 standby power.

- 1. Elevator equipment
- 2. Elevator hoistway lighting
- 3. Elevator machine room ventilation and cooling equipment
- 4. Elevator controller cooling equipment.

**3008.15.1 Protection of wiring or cables**. Wires or cables that provide normal and standby power, control signals, communication with the car, lighting, heating, air conditioning, ventilation, and fire-detecting systems to fire service access elevators shall be protected by construction having a minimum <u>2-hour</u> fire-resistance rating or shall be circuit integrity cable having a minimum <u>2-hour</u> fire-resistance rating.

Section 69. Section 23.10.3304.1 of the Bellevue City Code is hereby amended to read as follows:

## 23.10.3304.1 Bellevue City Code Section 3304.1.5 Amended – Excavation and fill.

Bellevue City Code Section 3304.1.5 is hereby amended to include the following new subsections:

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 therefore 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.

Section 70. Section 23.10.3306.1 of the Bellevue City Code is hereby adopted to read as follows:

## 23.10.3306.1 International Building Code Table 3306.1 amended – Protection of Pedestrians.

International Building Code Table 3306.1 is hereby amended as follows:

## TABLE 3306.1 PROTECTION OF PEDESTRIANS

HEIGHT OF CONSTRUCTION	DISTANCE FROM CONSTUCTION TO LOT LINE OR PEDESTIAN 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

Section 71. Section 23.10.3306.2 of the Bellevue City Code is hereby adopted to read as follows:

### 23.10.3306.2 Internation Building Code Section 3306.2 amended – Walkways.

International Building Code Section 3306.2 is hereby amended 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 72. The Bellevue City Code is hereby amended to create a new Chapter 23.12 Residential Code, to read as follows:

## Chapter 23.12 RESIDENTIAL CODE

Sections:	
23.12.010	Adoptions.
23.12.020	Amendments, Additions, or Exceptions to the 2009 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 -
	Determination of 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 of this code, are adopted and shall be applicable within the city:

### A. International Residential Code

- 1. Code Adoption. The 2009 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 "Administration" is adopted, together with 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 2009 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

	WINI	D DESIGN		SUBJECT	TO DAMA	GE FROM	T.				
Ground Snow Load	Speed <sup>d</sup> (mph)	Topographic Effects <sup>k</sup>	Seismic Design Category	Weathering <sup>a</sup>	Frost line depth	Termite <sup>c</sup>	Winter Design Temp <sup>e</sup>	Ice Barrier Under- layment Required <sup>h</sup>	Flood Hazards <sup>9</sup>	Air Freezing Index	Mean Annual Temp <sup>j</sup>
25	85	NO	D2	MODERATE	12"	Slight to	22	NO	March 12,	170	51
			_			Moderate	,	 	1974 entry into		
						,			National		
			:						Flood		
									Insurance		
					!				Program. Current		
				_					maps dated		
			:						September		
				,		}			28, 2007 entitled		
			,						"The Flood		
									Insurance		
									Study for		
									King County"	1	

For SI: 1 pound per square foot = 0.0479 kN/m<sup>2</sup>, 1 mile = 1.609km/h.

- 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)]. Wind exposure category shall be determined on 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%) value on the National Climatic Date 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° Fahrenheit)" 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 – Determination of 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 areas prone to flooding. At a minimum, the design flood elevation is 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 73. Section 23.16.010 of the Bellevue City Code is hereby amended to read as follows:

### 23.16.010 <u>Barrier Requirements</u> – 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 or the International Residential Code AG105 adopted pursuant to Chapter 23.10 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 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 74. Chapter 23.50 of the Bellevue City Code is hereby amended as follows:

Chapter 23	.50
MECHANICAL	CODE

Sections:	
23.50.010	Adoptions.
23.50.020	Amendments, Additions, or Exceptions to the 2009 International
	Mechanical Code.
23.50.501.2	International Mechanical Code Section 501.2.1 Amended –
	Exhaust Discharge.
23.50.504.4	International Mechanical Code Section 504.4 Amended –
	Exhaust Discharge.

Section 75. Section 23.50.010 of the Bellevue City Code is hereby adopted to read as follows:

### 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 of this code, are adopted and shall be applicable within the city:

#### A. International Mechanical Code.

- 1. Code Adoption. The 2009 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 2008 Edition of NFPA 58 (Liquefied Petroleum Gas Code) and the 2009 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 2008 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 2009 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.

Section 76. Section 23.50.020 of the Bellevue City Code is hereby adopted to read as follows:

## 23.50.020 Amendments, Additions, or Exceptions to the 2009 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.

Section 77. Section 23.50.501.2 of the Bellevue City Code is hereby adopted to read as follows:

# 23.50.501.2 International Mechanical Code Section 501.2 Amended – Exhaust Discharge

International Mechanical Code Section 501.2 is hereby amended to read as follows:

**501.2 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 cooling fans shall be permitted to discharge into the attic space of dwelling units having private attics.
  - 2. Commercial cooking recirculating systems.
- **501.2.1 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 that 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 design flood level.
- 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 grade.

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, 506.4 and 506.5.
  - 7.3 Dust stock and refuse conveying systems, Section 511.
  - 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.

Section 78. Section 23.50.504.4 of the Bellevue City Code is hereby adopted to read as follows:

## 23.50.504.4 International Mechanical Code Section 504.4 Amended – Exhaust Discharge.

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 back-draft 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

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connected to a vent connector, vent or chimney . Clothes dryer exhaust ducts shall not extend into or through ducts or plenums.

Section 79. Chapter 23.60 of the Bellevue City Code is hereby amended to read as follows:

## Chapter 23.60 PLUMBING CODE

Sections:

23.60.010

Uniform Plumbing Code.

23.60.020

Scope.

Section 80. Chapter 23.60.010 of the Bellevue City Code is hereby amended to read as follows:

23.60.010 Uniform Plumbing Code.

The 2009 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 Chapter 51-56 and 51-57 WAC, excluding chapter 1 "Administration" is adopted, together with Appendix Chapter L "Alternate Plumbing Systems" excluding sections L5 through L7 and "Lawn Sprinkler Head" from table 6-4 of Appendix L; and shall be applicable within the city, as amended, added to and excepted in this chapter.

Section 81. Chapter 23.60.020 of the Bellevue City Code is hereby amended to read as follows:

#### 23.60.020 Scope.

The provisions of the 2009 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 the City of Bellevue Utilities Codes Title 24 or Utilities Engineering Standards related to water, sewer or storm drain improvements located more than 24" outside a building, the City of Bellevue Utilities Codes and Standards shall prevail.

Section 82. This ordinance shall take effect and be in force after its adoption and legal publication on July 1, 2010.

Passed by the City Council this <u>2/5</u> day of June, 2010, and signed in authentication of its passage this <u>2/5</u> day of June, 2010.

(SEAL)

# ORIGINAL

Don Davidson, DDS

Mayor

Approved as to form:

Lori M. Riordan, City Attorney

Lacey L. Madche, Assistant City Attorney

Attest:

Myrna L. Basich, City Clerk

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