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

1. For buildings not greater than 420 feet (128 m) in *building height*, the *fire-resistance rating* of the building elements in Type IA construction, other than structural frame and bearing walls, shall be permitted to be reduced to the minimum *fire-resistance ratings* for the building elements in Type IB.
2. In other than Groups F-1, M and S-1 occupancies, the *fire-resistance rating* of the building elements in Type IB construction, other than structural frame and bearing walls, shall be permitted to be reduced to the *fire-resistance ratings* in Type IIA.
3. The *building height* and building area limitations of a building containing building elements with reduced *fire-resistance ratings* shall be permitted to be the same as the building without such reductions.

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.

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.

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.

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

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.

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

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.

TABLE 403(1)
Standby (Legally Required) and Emergency Power

<u>Type of equipment</u>	<u>Maximum Time to Energize Loads</u>	<u>Minimum Run Time (Duration)</u>	<u>IBC Section</u>	<u>IFC or NFPA Section</u>
Emergency Power Systems 1				
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 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 ventilation	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

<u>Type of equipment</u>	<u>Maximum Time to Energize Loads</u>	<u>Minimum Run Time (Duration)</u>	<u>IBC Section</u>	<u>IFC or NFPA Section</u>
Emergency Power Systems 1				
Legally Required Standby¹				
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	10 seconds	8 hours		913.2 and NFPA 20
Transformer vault ventilation equipment	60 seconds	4 hours		
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.

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403.7 Smoke control. A smoke control system meeting the requirements of Section 909 shall be provided.

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.

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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).

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).

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<p align="center">TABLE 503 ALLOWABLE BUILDING HEIGHTS AND AREAS^a</p>										
<p align="center">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.</p>										
GROUP	HEIGHT (feet)	TYPE OF CONSTRUCTION								
		TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
		A	B	A	B	A	B	HT	A	B
	UL	160	65	55	65	55	65	50	40	
	STORIES (S) AREA (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
A-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
A-4	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-5	S	UL	UL	UL	UL	UL	UL	UL	UL	UL
	A	UL	UL	UL	UL	UL	UL	UL	UL	UL
B	S	UL	11	5	3	5	3	5	3 ^e	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	21,000	16,500	11,000	7,000	9,500	7,000	10,500	7,500	NP
H-2 ^d	S	UL	3	2	1	2	1	2	1	1
	A	21,000	16,500	11,000	7,000	9,500	7,000	10,500	7,500	3,000
H-3 ^d	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
H-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	4	4	3	3	3	3	3	3	2
	A	UL	UL	37,500	23,000	28,500	19,000	36,000	18,000	9,000
I-1	S	UL	9	4	3	4	3	4	3	2
	A	UL	55,000	19,000	10,000	16,500	10,000	18,000	10,500	4,500
I-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
I-3	S	UL	4	2	1	2	1	2	2	1
	A	UL	UL	15,000	10,000	10,500	7,500	12,000	7,500	5,000
I-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
M	S	UL	11	4	2	4	2	4	3	1
	A	UL	UL	21,500	12,500	18,500	12,500	20,500	14,000	9,000
R-1	S	UL	11	4	4	4	4	4	3 ^e	2
	A	UL	UL	24,000	16,000	24,000	16,000	20,500	12,000	7,000
R-2	S	UL	11	4	4	4	4	4	3 ^e	2
	A	UL	UL	24,000	16,000	24,000	16,000	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 ^{b,c}	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
U ^c	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

See Footnotes next page

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For SI: 1 foot = 304.8 mm, 1 square foot = 0.0929 m².

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 generator 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 708.2 Exceptions:)

- 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.

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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.

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. |

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. |

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. |

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including, but not limited to, photographs and paintings, are of such limited quantities that a hazard of fire development or spread is not present. In Group I-3, combustible decorative materials are prohibited.

Fixed or movable walls and partitions, paneling, wall pads and crash pads applied structurally or for decoration, acoustical correction, surface insulation or other purposes shall be considered interior finish if they cover 10 percent or more of the wall or of the ceiling area, and shall not be considered decorative materials or furnishings.

In Group B and M occupancies, fabric partitions suspended from the ceiling and not supported by the floor shall meet the flame propagation performance criteria in accordance with Section 806.2 and NFPA 701 or shall be noncombustible.

806.1 General requirements. In occupancies in Groups A, B, E, I and R-1 and dormitories in Group R-2, curtains, draperies, hangings and other decorative materials suspended from walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 806.2 or be noncombustible.

In Groups I-1 and I-2, combustible decorative materials shall meet the flame propagation criteria of NFPA 701 unless the decorative materials,

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

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.

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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.

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 m²) in each 50 linear feet (15,240 mm), or fraction thereof, of *exterior wall* in the story on at least one side. The required openings shall be distributed such that the lineal distance between adjacent openings does not exceed 50 feet (15 240 mm).

903.2.11.1.1 Opening dimensions and access. Openings shall have a minimum

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.

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.

903.3.3 Obstructed locations. Automatic sprinklers shall be installed in accordance with NFPA 13 obstruction criteria and the listing requirements of the sprinkler head. Automatic sprinklers shall be installed in or under covered kiosks, displays, booths, concession stands, or equipment that exceeds 4 feet (1,219 mm) in width and depth, and for all multi-level exhibit booths. Not less than a 3-foot (914 mm) clearance shall be maintained between automatic sprinklers and the top of piles of combustible fibers. Exception: Kitchen equipment under exhaust hoods protected with a fire-extinguishing system in accordance with Section 904.

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.

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.

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.

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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.

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.

905.3.4 International Building Code Section 905.3.4 is hereby deleted.

905.3.4.1 International Building Code Section 905.3.4.1 is hereby deleted.

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.

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.

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).

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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.

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

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

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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.

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907.2.18.1 Smoke detectors. A minimum of one smoke detector (where such locations are within unconditioned spaces, other devices may be installed in accordance with 907.5.3.) 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.

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*.

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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.

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.

907.5.2.2 Emergency voice/alarm communication systems. Emergency voice/alarm communications 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.

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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.

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

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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.

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909.10.2 Ducts, including shafts acting as ducts.

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

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

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.

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).

909.20 Smokeproof enclosures. Where required by Section 1022.9, 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.

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.

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

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.

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

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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).

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1011.5.3 Power source. Exit signs shall be illuminated at all times. To ensure continued illumination for a duration of not less than 90 minutes or such time as stipulated by Table 403(1) when applicable, in case of primary power loss, the sign illumination means shall be connected to an emergency power system provided from storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with NFPA 70 (National Electrical Code).

Exception: Approved exit sign illumination means that provide continuous illumination independent of external power sources for a duration of not less than 120 minutes, in case of primary power loss, are not required to be connected to an emergency power system.

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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."

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.

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

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

Exceptions:

1. Detached one- and two-family dwellings, assigned to Seismic Design Category A, B, or C, or located where the mapped short-period spectral response acceleration, S_s , is less than 0.4 g.
2. The seismic-force-resisting 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.

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1704.1 International Building Code Section 1704.1 is hereby amended by deleting Exception 3 in its entirety.

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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.

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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.

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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.

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.

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.

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.

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.

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 requirements 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.

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 2-hour fire-resistance rating or shall be circuit integrity cable having a minimum 2-hour fire-resistance rating.

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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.

3304.1.6 Assignment of Savings on Applications for Permits. If the building official determines that there is a possibility of injury, damage or expense to the City arising from an applicant's work or proposed use of any public place, the applicant shall execute and file an assignment of savings. The amount of the assignment of savings shall be determined by the building official at the time of approving the application based on the estimated amount and extent of the potential injury, damage, or expense to the City. The applicant shall file the same with the building official before receiving a permit. The City may use such assignment of savings to pay for any injury, damage or expense the City may sustain in conjunction with the permitted work. The balance of the assignment of savings, if any after such deductions, shall be returned to the applicant. If the assignment of savings is insufficient, the applicants will be liable for the deficiency. Upon notice to the applicant, the building official may at any time increase or reduce the amount required deposit or waive same as conditions warrant.

3304.1.7 Expiration. Every permit issued by the building official under the provisions of BCC [23.10.3304.1](#) shall be subject to all provisions of BCC [23.05.160](#).

3304.1.8 Fees. The fee for each permit shall be as set forth in the fee ordinance, as now or hereafter amended.

3304.1.9 Compliance. All solder piles and other materials used for shoring purposes shall be removed from public places and adjacent property as part of and prior to completion of the construction project in accordance with the plans approved by the building official or as modified with his approval, unless the permit provides otherwise.

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.

**TABLE 3306.1
PROTECTION OF PEDESTRIANS**

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