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Purpose: This document is a reference guide to the automatic sprinkler system requirements of Chapter 9 of the Building Code

Related Code Section(s): BC 903

Subject(s): Fire protection, sprinkler system

The following table incorporates the conditions described in Section BC 903 for when a space within a building or an entire building is required to be protected with an automatic sprinkler system. The table is applicable to buildings that are subject to the 2008 Construction Codes. Although intended to be comprehensive in scope, where the requirements of the table below differ from the requirements of the text of the Building Code, the text of the Building Code shall be followed.

See Table on the following pages

Occupancy Group or Specified Use	Conditions that require a sprinkler system	Sprinkler system required only in fire area	Sprinkler system required throughout entire building
All Group A (BC 903.2.1)	Dressing rooms and property rooms used in conjunction with Group A occupancies providing live entertainment (Stages shall comply with BC 410.6. See "Stages" under "Other Special Occupancies" in this Table)	Yes	
A-1 (BC 903.2.1.1)	Fire area > 12,000 sq ft	Yes ¹	
	Fire area occupant load ≥ 300	Yes ¹	
	Occupant load of all Group A fire areas on a single floor, other than level of exit discharge, ≥ 300	Yes ¹ in all Group A fire areas on such floor	
	Fire area contains a multi-theater complex	Yes ¹	
	¹ Automatic sprinkler system protection is also required in all floors between the Group A occupancy and the level of exit discharge.		
A-2 (BC 903.2.1.2)	Fire area > 5,000 sq ft	Yes ¹	
	Fire area occupant load ≥ 300	Yes ¹	
	Aggregate occupant load of all Group A fire areas on any given floor, other than level of exit discharge, ≥ 300	Yes ¹ in all Group A fire areas on such floor	
	Fire area of any size used as a cabaret	Yes ¹	
	¹ Automatic sprinkler system protection is also required in all floors between the Group A occupancy and the level of exit discharge.		
A-3 (BC 903.2.1.3)	Fire area > 12,000 sq ft	Yes ^{1,2}	
	Fire area occupant load ≥ 300	Yes ^{1,2}	
	Aggregate occupant load of all Group A fire areas on any given floor, other than level of exit discharge, ≥ 300	Yes ^{1,2} in all Group A fire areas on such floor	
	¹ Automatic sprinkler system protection is also required in all floors between the Group A occupancy and the level of exit discharge. ² A fire area used exclusively as a participant sports area, where the main floor area is on the main level of exit discharge, need not be sprinklered		
A-4 (BC 903.2.1.4)	Fire area > 12,000 sq ft	Yes ^{1,2}	
	Fire area occupant load ≥ 300	Yes ^{1,2}	
	Aggregate occupant load of all Group A fire areas on any given floor, other than level of exit discharge, ≥ 300	Yes ^{1,2} in all Group A fire areas on such floor	
	¹ Automatic sprinkler system protection is also required in all floors between the Group A occupancy and the level of exit discharge. ² A fire area used exclusively as a participant sports area, where the main floor area is on the main level of exit discharge, need not be sprinklered.		
A-5 (BC 903.2.1.5)	Enclosed areas > 1,000 sq ft, including but not limited to the concession concourse, concession stands, retail areas, press boxes, and other accessory use areas	Yes	
E (BC 903.2.2)	Fire area > 20,000 sq ft	Yes	
	Portions of building located below level of exit discharge	Yes ³	
	³ Sprinklers not required in buildings in which every classroom has at least one exit door at ground level opening immediately onto the exterior		

Occupancy Group or Specified Use	Conditions that require a sprinkler system	Sprinkler system required only in fire area	Sprinkler system required throughout entire building
F (BC 903.2.3)	Group F-1 fire area > 7,500 sq ft	Yes	
	Group F-1 fire area > 12,000 sq ft		Yes
	Group F-1 fire area of any size located more than 3 stories above grade		Yes
	Aggregate of Group F-1 fire areas on all floors > 24,000 sq ft		Yes
	Group F fire area meets Section 280 of the New York State Labor Law for "factory buildings" defined in Section 2 of such law		Yes
	Group F-1 fire area containing wood working operations > 2,500 sq ft that generate finely divided combustible waste or use finely divided combustible materials		Yes
	Group F-1 fire area containing a repair garage > 10,000 sq ft in a building two or more stories in height		Yes
	Group F-1 fire area containing a repair garage > 12,000 sq ft in a one-story buildings		Yes
	Group F-1 fire area containing a repair garage servicing vehicles parked in the basement		Yes
H (BC 903.2.4)	Group H-1, H-2, H-3, or H-4 fire area of any size	Yes	
	Main use or dominant occupancy of building is any Group H		Yes
	Group H-5 fire area of any size		Yes
	Buildings, or portions thereof, where cellulose nitrate film or pyroxylin plastics are manufactured, stored or handled in quantities >100 pounds	Yes	
I (BC 903.2.5)	Group I fire area of any size	Yes	
	Group I-2 smoke compartments containing patient sleeping rooms (see BC 407.5)	Yes	
	Buildings with a main use or dominant occupancy of Group I		Yes
M (BC 903.2.6)	Group M fire area > 7,500 sq ft	Yes	
	Group M fire area of any size located more than 3 stories above grade	Yes	
	Group M fire area of any size located in a high-rise building.	Yes	
	Group M fire area of any size that contains an unenclosed stair or escalator	Yes	
	Group M fire area > 12,000 sq ft		Yes
	Aggregate of Group M fire areas on all floors (including mezzanines) > 24,000 sq ft		Yes
	Group M fire area of any size where storage of merchandise is in high-piled or rack storage arrays	Yes	
R (BC 903.2.7)	Group R fire area of any size	Yes ⁴	
	Buildings with a main use or dominant occupancy of Group R		Yes ⁴
	⁴ Sprinklers not required in detached one- and two-family dwellings 3 stories or less in height and in attached one-family dwellings (town houses) 3 stories or less in height		

Occupancy Group or Specified Use	Conditions that require a sprinkler system	Sprinkler system required only in fire area	Sprinkler system required throughout entire building
S-1 (BC 903.2.8)	Group S-1 fire area > 500 sq ft	Yes	
	Group S-1 fire area of any size located more than 3 stories above grade	Yes	
	Group S-1 fire area > 12,000 sq ft		Yes
	Aggregate of Group S-1 fire areas on all floors (including mezzanines) > 24,000 sq ft		Yes
	Building area > 1,000 sq ft and the main use or dominant occupancy is Group S-1		Yes
	Storage of tires > 500 sq ft or 7,500 cu ft		Yes
S-2 (BC 903.2.9)	Group S-2 fire area > 5,000 sq ft	Yes	
	Building area > 5,000 sq ft and the main use or dominant occupancy is Group S-2		Yes
	Group S-2 fire area > 5,000 sq ft used for storage of commercial trucks or buses		Yes
	Group S-2 enclosed parking garage in accordance with BC 406.4		Yes
	Any open or enclosed parking garage located beneath any other occupancy		Yes ⁵
	⁵ Sprinklers not required in parking garages located beneath Group R-3 occupancies		

Occupancy Group or Specified Use	Conditions that require a sprinkler system	Sprinkler system required only in fire area	Sprinkler system required throughout entire building
All Occupancies (BC 903.2.10)	Floor level located \geq 55 feet above the lowest level of fire department vehicle access AND has an occupant load $>$ 30 on that floor		Yes
	Any above or below grade story $>$ 1,500 sq ft where one of the following types of exterior wall openings is <i>not</i> provided: 1. openings (located in each 50 linear feet, or fraction thereof, of exterior walls) below grade that lead directly to ground level by an exterior stairway (see BC 1009) or an outside ramp (see BC 1010); 2. openings entirely above adjoining ground level at least 20 sq ft in each 50 linear feet, or fraction thereof	Yes throughout the fire area and the entire story	
	Rubbish and linen chutes	Yes at top of chute. For chutes extending 3 or more floors, sprinkler heads required at alternate floors within such chute	
	Rubbish/linen chute access room and terminal room	Yes	
	Steel-plated or similarly reinforced or secured vault-like occupancy of any size	Yes	
	Areas used for the storage and sorting of refuse and recyclables	Yes	
	Spaces in which two or more clothes drying machines are installed	Yes sprinkler heads must cover 5 ft on all sides of the drying machines	

Occupancy Group or Specified Use	Conditions that require a sprinkler system	Sprinkler system required only in fire area	Sprinkler system required throughout entire building
Other Special Occupancies (BC 903.2.13)	Covered mall building (BC 402.8)		Yes mall sprinklers must be independent of tenant spaces
	High-rise buildings in any occupancy group (BC 403.2)		Yes
	A building with an atrium in any occupancy group (BC 404.3)		Yes see BC 404.3 for exceptions
	Underground buildings in any occupancy group (BC 405.3)	Yes in underground portions and highest level of exit discharge	
	Stages (BC 410.6)	Yes see BC 410.6 for locations	
	Special amusement building (BC 411.4)		Yes ⁶
	⁶ sprinklers not required in buildings < 1,000 sq ft with all travel distances < 50 ft		
	Spaces where flammable finishes are sprayed, dipped or used in immersions (BC 416.4)	Yes	see Group H for additional requirements
	Drying rooms (BC 417.4)	Yes	see Group H for additional requirements
	Non production chemical laboratory of any size (BC 419.6)	Yes	
	Aggregate of all non production chemical laboratories on all floors > 20,000 sq ft (BC 419.6)		Yes
	Storage room dedicated to non production chemical laboratory (BC 419.9)	Yes at least 1 sprinkler head per 90 sq ft	
	Spray booth (MC 502.7.3.5)	Yes at junction of booth exhaust & manifold	see Group H for additional requirements
	Rooms with fuel-oil tanks and fuel-oil burning equipment (MC 1305.13.3)	Yes	see Group H for additional requirements
	Locations as specified in other sections of the Construction Codes (including Technical/Buildings Bulletin 2009-007)	Refer to Technical/Buildings Bulletin 2009-007	Refer to Technical/Buildings Bulletin 2009-007