

# AMBULATORY HEALTH CARE OCCUPANCIES



## AMBULATORY HEALTH CARE OCCUPANCIES

1.0	GENERAL REQUIREMENTS.	The requirements of this chapter shall apply to buildings or portions thereof used as ambulatory health care occupancies.		
	An occupancy used to provide services or treatment simultaneously to four (4) or more patients that provides, on an outpatient basis, one or more of the following:			
	(1) Treatment for patients that renders the patients incapable of taking action for self-preservation under emergency conditions without the assistance of others;			
	(2) Anesthesia that renders the patients incapable of taking action for self-preservation under emergency conditions without the assistance of others;			
	(3) Treatment for patients who, due to the nature of their injury or illness, are incapable of taking action for self-preservation under emergency conditions without the assistance of others.			
	Medical Services Clinics / Dispensaries (Ambulatory to > 3 patients)	Dentists / Doctors Outpatient Clinics (Ambulatory to > 3 patients)		Health Center (Ambulatory to > 3 patients)
1.1	GENERAL CONDITIONS AND BUILDING LIMITS			
	Building Category	Building Height (m)	Floor Area (m²)	Basement Levels
1.1.1	LOW-RISE Ambulatory Health Care Occupancies	< 15.0 m Habitable Height	No Limit	No Limit [in Floor Area/Fire Area, Depth or Levels]
1.1.2	MID-RISE Ambulatory Health Care Occupancies	≥ 15 m to < 28 m Habitable Height		
1.1.3	HIGH-RISE Ambulatory Health Care Occupancies	≥ 28 m Habitable Height		



FIRE AND LIFE SAFETY (FLS) REQUIREMENT					
Item	Fire Safety Provisions	Minimum Requirements	Low-rise	Mid-rise	High-rise
1.2	CLASSIFICATION OF OCCUPANCIES				
1.2.1	MULTIPLE OCCUPANCIES	Multiple occupancies shall be in accordance with NFPA 101 6.1.14.	Required	Required	Required
1.2.1.1	Atrium walls	Atrium walls in accordance with NFPA 101 6.1.14.4.6 shall be permitted to serve as part of the separation required by NFPA 101 6.1.14.4.1 for creating separated occupancies on a story-by-story basis, provided both of the following are met:	Permitted	Permitted	Permitted
1.2.1.1(1)		The provision is not used for occupancy separations involving industrial and storage occupancies.	Required	Required	Required
1.2.1.1(2)		Smoke partitions serving as atrium walls are not permitted to serve as enclosures for hazardous areas.	Required	Required	Required
1.2.1.2	Sections of Ambulatory Health Care Facilities	Sections of ambulatory health care facilities shall be permitted to be classified as other occupancies, provided that they meet both of the following conditions:	Permitted	Permitted	Permitted
1.2.1.2(1)		They are not intended to serve ambulatory health care occupants for purposes of treatment or customary access by patients incapable of self-preservation.	Required	Required	Required
1.2.1.2(2)		They are separated from areas of ambulatory health care occupancies by construction having a minimum 1-hour fire resistance rating.	Required	Required	Required
1.2.1.3	Egress Provisions of Ambulatory Health Care Facilities	All means of egress from ambulatory health care occupancies that traverse nonambulatory health care spaces shall conform to the requirements for ambulatory health care occupancies.	Required	Required	Required



Item	Fire Safety Provisions	Minimum Requirements	Low-rise	Mid-rise	High-rise
1.2.1.4		Exit through a horizontal exit into other contiguous occupancies that do not conform to ambulatory health care egress provisions but that do comply with the requirements of the nonambulatory health care occupancy, shall be permitted, provided that the occupancy does not contain high hazard contents.	Permitted	Permitted	Permitted
1.2.1.5		Egress provisions for areas of ambulatory health care facilities that correspond to other occupancies shall meet the requirements for such occupancies. Where the clinical needs of the occupant necessitate the locking of means of egress, staff shall be present for the supervised release of occupants during all times of use.	Required	Required	Required
1.2.1.6		Any area with a hazard of contents classified higher than that of the ambulatory health care occupancy and located in the same building shall be protected as required for hazardous areas in item 3.2.	Required	Required	Required
1.2.1.7	High Hazard Non-Health care-related Occupancies	Non-health care-related occupancies classified as containing high hazard contents shall not be permitted in buildings housing ambulatory health care occupancies.	Permitted	Permitted	Permitted
1.3	OCCUPANT LOAD (OL)	Determined on the basis of the occupant load factors (OLF) that are characteristic of the use of the space as specified in 1.3.1.	Required	Required	Required
1.3.1	OCCUPANT LOAD FACTOR (OLF) Ambulatory Health Care	The occupant load shall be not less than the number of persons determined by dividing the floor area assigned to that use by the occupant load factor of 14 m <sup>2</sup> per person.	Required	Required	Required
1.4	CLASSIFICATION OF HAZARD OF CONTENTS	Hazard of contents shall be classified in accordance with NFPA 101 section 6.2.	Required	Required	Required
1.4.1	HIGH-HAZARD CONTENTS	Buildings or areas in which high-hazard contents are stored, used, or handled shall comply with NFPA 101 section 7.11.	Required	Required	Required



Item	Fire Safety Provisions	Minimum Requirements	Low-rise	Mid-rise	High-rise
1.5	MINIMUM CONSTRUCTION REQUIREMENTS.	Construction shall be in accordance with NFPA 5000 Chapters 7-8, 13-14, 31, and 35- 40, except as modified in 1.5.1 and 1.5.2.	Required	Required	Required
1.5.1		Any level below the level of exit discharge shall be separated from the level of exit discharge by not less than Type II (111).	Required	Required	Required
1.5.1.1		Any hazardous spaces within any level below the level of exit discharge, shall be protected in accordance with NFPA 101 section 8.7.	Required	Required	Required
1.5.2		Interior nonbearing walls in buildings of Type I or Type II construction shall be constructed of noncombustible or limited-combustible materials.	Required	Required	Required
1.6	ACCESSIBILITY.	Accessibility shall be in accordance with NFPA 5000 Chapter 12.	Required	Required	Required
1.7	(Reserved).				
<b>2.0</b>	<b>MEANS of EGRESS REQUIREMENTS</b>	<b>Means of egress shall comply with NFPA 101 Chapter 7, and as modified in item 2.0 of this FLS Occupancy Chapter.</b>			
2.1	GENERAL	Every aisle, passageway, corridor, exit discharge, exit location, and access shall be in accordance with NFPA 101 chapter 7, unless otherwise modified in this occupancy chapter.	Required	Required	Required
2.2	MEANS OF EGRESS COMPONENTS	Means of egress components shall be limited to the types described in 2.2.1 through 2.2.7.	Required	Required	Required
2.2.1	DOORS	Doors shall be in accordance with NFPA 101 section 7.2.1.	Required	Required	Required
2.2.1.1	Self-closing Doors	Any door required to be self-closing shall be permitted to be held open only by an automatic release device that complies with NFPA 101 7.2.1.8.2.	Permitted	Permitted	Permitted
2.2.1.2	Doors in Stair Enclosure	Where doors in a stair enclosure are held open by an automatic release device as permitted in 2.2.1.1, initiation of a door closing action on any level shall cause all doors at all levels in the stair enclosure to close.	Required	Required	Required



Item	Fire Safety Provisions	Minimum Requirements	Low-rise	Mid-rise	High-rise
2.2.1.3	Locks	Locks complying with NFPA 101 7.2.1.5.5 shall be permitted only on principal entrance/exit doors.	Permitted	Permitted	Permitted
2.2.1.4	Door-locking Arrangements	Door-locking arrangements shall be permitted where patient special needs require specialized protective measures for their safety, provided that all of the following criteria are met:	Permitted	Permitted	Permitted
2.2.1.4(1)		Staff can readily unlock doors at all times.	Required	Required	Required
2.2.1.4(2)		A total (complete) smoke detection system is provided throughout the locked space, or locked doors can be remotely unlocked at an approved, constantly attended location within the locked space.	Required	Required	Required
2.2.1.4(3)		The building is protected throughout by an approved, supervised automatic sprinkler system.	Required	Required	Required
2.2.1.4(4)		The locks are electrical locks that fail safely so as to release upon loss of power to the device.	Required	Required	Required
2.2.1.4(5)		The locks release by independent activation of each of the following:	Required	Required	Required
2.2.1.4(5)(a)		Activation of the smoke detection system required by 2.2.1.4(2).	Required	Required	Required
2.2.1.4(5)(b)		Waterflow in the automatic sprinkler system required by 2.2.1.4(3)	Required	Required	Required
2.2.1.5	Locked Doors in the Means of Egress	Doors that are located in the means of egress and are permitted to be locked under other provisions of 2.2.1.4 shall comply with both of the following:	Permitted	Permitted	Permitted
2.2.1.5(1)		Provisions shall be made for the rapid removal of occupants by means of one of the following:	Required	Required	Required



Item	Fire Safety Provisions	Minimum Requirements	Low-rise	Mid-rise	High-rise
2.2.1.5(1)(a)		Remote control of locks from within the locked smoke compartment.	Required	Required	Required
2.2.1.5(1)(b)		Keying of all locks to keys carried by staff at all times.	Required	Required	Required
2.2.1.5(1)(c)		Other such reliable means available to the staff at all times.	Required	Required	Required
2.2.1.5(2)		Only one locking device shall be permitted on each door.	Required	Required	Required
2.2.1.6	Delayed-Egress Electrical Locking Systems	Delayed-egress electrical locking system complying with NFPA 101 section 7.2.1.6.1 shall be permitted.	Permitted	Permitted	Permitted
2.2.1.7	Sensor-Release of Electrical Locking Systems	Sensor-release of electrical locking systems complying with NFPA 101 section 7.2.1.6.2.	Permitted	Permitted	Permitted
2.2.1.8	Elevator Lobby Exit Access Door Assemblies Locking	Elevator lobby exit access door-locking arrangements in accordance with NFPA 101 section 7.2.1.6.3.	Permitted	Permitted	Permitted
2.2.1.9	Horizontal or Vertical Security Grilles or Doors	As part of the required means of egress from a tenant space complying with NFPA 101 section 7.2.1.4.1(3)	Permitted	Permitted	Permitted
2.2.1.10	Revolving Doors	Revolving door assemblies, used or not used in the means of egress, complying with NFPA 101 section 7.2.1.10.	Permitted	Permitted	Permitted
2.2.2	STAIRS	Stairs complying with NFPA 101 section 7.2.2 shall be permitted	Permitted	Permitted	Permitted
2.2.2.1	Spiral Stairs	Spiral stairs as a component in a means of egress complying with NFPA 101 section 7.2.2.2.3.	Permitted	Permitted	Permitted
2.2.3	SMOKEPROOF ENCLOSURES	Smokeproof enclosures complying with NFPA 101 section 7.2.3.	Permitted	Permitted	Permitted
2.2.4	HORIZONTAL EXITS	Horizontal exit and used as substitute for other exits complying with NFPA 101 section 7.2.4.	Permitted	Permitted	Permitted
2.2.5	RAMPS	Ramps complying with NFPA 101 section 7.2.5.	Permitted	Permitted	Permitted
2.2.6	EXIT PASSAGEWAY	Exit passageways complying with NFPA 101 section 7.2.6.	Permitted	Permitted	Permitted
2.2.6.1		An exit passageway shall serve as a horizontal means of exit travel that is protected from fire in a manner similar to an enclosed interior exit stair.	Required	Required	Required
2.2.7	AREA OF REFUGE	Areas of refuge complying with NFPA 101 section 7.2.12.	Permitted	Permitted	Permitted



Item	Fire Safety Provisions	Minimum Requirements	Low-rise	Mid-rise	High-rise
2.3	CAPACITY OF MEANS OF EGRESS	The capacity of means of egress shall be in accordance with NFPA 101 section 7.3 and as modified in 2.3.1.	Required	Required	Required
2.3.1	CORRIDOR OR PASSAGEWAY	The clear width of any corridor or passageway required for exit access shall be not less than 1200mm.	Required	Required	Required
2.3.2	DOORS in Diagnostic or Treatment Areas	Doors in the means of egress from diagnostic or treatment areas, such as x-ray, surgical, or physical therapy, shall provide a clear width of not less than 810 mm.	Required	Required	Required
2.4	NUMBER OF MEANS OF EGRESS	The number of means of egress shall be in accordance with NFPA 101 7.4.	Required	Required	Required
2.4.1	NUMBER of EXITS		Required	Required	Required
2.4.1.1	Minimum Two (2) Exits	Not less than two separate exits shall be provided on every story.	Required	Required	Required
2.4.1.2	Exits from Every Part of Every Story.	Not less than two separate exits shall be accessible from every part of every story.	Required	Required	Required
2.4.1.3	Exits from Each Smoke Compartment	Not less than two exits shall be accessible from each smoke compartment.	Required	Required	Required
2.4.1.3(1)		Egress from smoke compartments shall be permitted through adjacent compartments provided that the two required egress paths are arranged so that both do not pass through the same adjacent smoke compartment.	Permitted	Permitted	Permitted
2.5	ARRANGEMENT OF MEANS OF EGRESS	Access to all required exits shall be arranged in accordance with NFPA 101 section 7.5. and as modified by 2.5.	Required	Required	Required
2.5.1	TRAVEL DISTANCE (TD)	Travel distance shall comply with 2.5.1.1 and 2.5.1.2.	Required	Required	Required
2.5.1.1	TD between any Point in a Room and an Exit	Travel distance shall not exceed 46 m.	Required	Required	Required
2.5.1.2		Travel distance shall not exceed 60 m (sprinkler protected).	Required	Required	Required
2.5.2	COMMON PATH (CP) OF TRAVEL	Limitations on common path shall comply with 2.5.2.1 thru 2.5.2.3.	Permitted	Permitted	Permitted





Item	Fire Safety Provisions	Minimum Requirements	Low-rise	Mid-rise	High-rise
2.5.2.1	Common Path Limit	Common path shall be limited to 23 m.	Required	Required	Required
2.5.2.2		Common path shall not exceed 30 m (sprinkler protected).	Required	Required	Required
2.5.2.3		Common path of travel within a single tenant space having an occupant load not exceeding 25 persons shall not exceed 30 m.	Required	Required	Required
2.5.3	DEAD-END (DE) CORRIDOR	Dead-end corridors shall be in accordance with 2.5.3.1 and 2.5.3.2.	Permitted	Permitted	Permitted
2.5.3.1		Dead-end corridors shall not exceed 6 m.	Required	Required	Required
2.5.3.2		Dead-end corridors shall not exceed 15 m (sprinkler protected).	Required	Required	Required
2.6	DISCHARGE FROM EXITS	Exit discharge shall comply with NFPA 101 section 7.7.	Required	Required	Required
2.6.1	EXIT TERMINATION	Exits shall terminate directly, at a public way or at an exterior exit discharge.	Required	Required	Required
2.6.2	EXIT DISCHARGE through Interior Building Areas	Exits shall be permitted to discharge through interior building areas, provided that all of the criteria in NFPA 101 section 7.7.2 are met.	Permitted	Permitted	Permitted
2.7	ILLUMINATION OF MEANS OF EGRESS	Means of egress shall be illuminated in accordance with NFPA 101 7.8.	Required	Required	Required
2.8	EMERGENCY LIGHTING	Emergency lighting facilities shall be provided in accordance with NFPA 101 section 7.9.	Required	Required	Required
2.8.1		Emergency lighting shall be provided in any building where any one of the conditions in 2.8.1.1 through 2.8.1.3 exists:	Required	Required	Required
2.8.1.1	Number of Stories	The building is three (3) or more stories in height.	Required	Required	Required
2.8.1.2	Number of Occupants	The occupancy is subject to 50 or more occupants above or below the level of exit discharge.	Required	Required	Required
2.8.1.3	Total Number of Occupants	The occupancy is subject to 300 or more total occupants.	Required	Required	Required



Item	Fire Safety Provisions	Minimum Requirements	Low-rise	Mid-rise	High-rise
2.8.2		Where general anesthesia or life-support equipment is used, each ambulatory health care facility shall be provided with an essential electrical system in accordance with NFPA 99.	Required	Required	Required
2.9	MARKINGS OF MEANS OF EGRESS	Means of egress shall have signs in accordance with NFPA 101 section 7.10.	Required	Required	Required
2.10	(Reserved).				
<b>3.0</b>	<b>PROTECTION</b>	<b>Protection shall comply with the applicable NFPA codes and standards, QCD FLS Annex and as modified in item 3.0 of this FLS Occupancy Chapter.</b>			
3.1	PROTECTION OF VERTICAL OPENINGS	Vertical openings shall be enclosed or protected in accordance with NFPA 101 section 8.6.	Required	Required	Required
3.1.1	CONVENIENCE OPENINGS	Convenience openings in accordance with NFPA 101 section 8.6.9.	Permitted	Permitted	Permitted
3.1.2	COMMUNICATING SPACE and ATRIUM	Where the provisions Communicating Space and Atrium in accordance with NFPA 101 section 8.6.6 and section 8.6.7 are used, the building shall comply with 3.5.1.2.	Required	Required	Required
3.1.5	FLOORS BELOW STREET FLOOR	Floors that are below the street floor and are used for storage or other than an ambulatory health care occupancy shall have no unprotected openings to ambulatory health care occupancy floors.	Required	Required	Required
3.2	PROTECTION FROM HAZARDS	Hazardous areas including, but not limited to, areas used for general storage, boiler rooms, and maintenance shops that include woodworking and painting areas shall be protected in accordance with NFPA 101 section 8.7.	Required	Required	Required
3.2.1	DOORS	Doors to hazardous areas shall be self-closing or automatic-closing.	Required	Required	Required
3.2.2	HIGH HAZARD CONTENTS AREAS	High hazard contents areas, shall meet all of the following criteria:	Required	Required	Required



Item	Fire Safety Provisions	Minimum Requirements	Low-rise	Mid-rise	High-rise
3.2.2.1	Enclosures/Separation from Other Areas	The area shall be separated from other parts of the building by fire barriers having a min. 1-hour FR rating, with all openings therein protected by self-closing fire door assemblies having a min. 3/4-hour fire protection rating.	Required	Required	Required
3.2.2.2	Extinguishing Requirements	The area shall be protected by an automatic extinguishing system.	Required	Required	Required
3.2.3	LABORATORIES	Laboratories in which chemicals are handled or stored shall comply with NFPA 45 and the requirements in section 3.2.1 and section 3.2.2 of the FLS Storage Occupancy Chapter.	Required	Required	Required
3.2.4	MEDICAL GAS	Medical gas storage areas and the operation, management, and maintenance of medical gases shall be in accordance with NFPA 99.	Required	Required	Required
3.2.5	COMMERCIAL COOKING OPERATIONS	Cooking facilities shall be protected in accordance with NFPA 96.	Required	Required	Required
3.2.5.1	Domestic Cooking Equipment is used for Food Warming or Limited Cooking	The protection or separation of food preparation facilities in 3.2.5 shall not be required.	Permitted	Permitted	Permitted
3.2.6	HAZARDOUS MATERIALS	Ambulatory health care occupancies with Storage, use, and handling of hazardous materials shall comply with the following codes unless otherwise modified by other provisions of this Code: NFPA 30, NFPA 54, NFPA 55, NFPA 58, NFPA 400, and NFPA 495.	Required	Required	Required
3.3	INTERIOR FINISH	Interior finish shall be in accordance with NFPA 101 section 10.2.	Required	Required	Required
3.3.1	INTERIOR WALL AND CEILING FINISH	Interior wall and ceiling finish material shall be Class A or Class B in exits and in exit access corridors.	Required	Required	Required
3.3.1.1		Interior wall and ceiling finishes shall be Class A, Class B, or Class C in areas other than those specified in 3.3.1	Required	Required	Required



Item	Fire Safety Provisions	Minimum Requirements	Low-rise	Mid-rise	High-rise
3.3.2	INTERIOR FLOOR FINISH	Interior floor finish in exit enclosures shall be Class I or Class II.	Required	Required	Required
3.4	DETECTION, ALARM & COMMUNICATION REQUIREMENTS				
3.4.1	GENERAL	Complete coverage of Fire Detection and Alarm System.	Required	Required	Required
3.4.2	INITIATION	Complete coverage of an Automatic Detection & Manual Initiating Devices.	Required	Required	Required
3.4.3	OCCUPANT NOTIFICATION	Complete Coverage of an Occupant Notification (audible & visible).	Required	Required	Required
3.4.3.1	Emergency Voice Evacuation System	Mass Notification System	NR	NR	Required
3.4.4	SUPPLEMENTARY				
3.4.4.1	Fire Telephone	In every required provisions of a fire command center (FCC) or emergency control center (ECC).	Required	Required	Required
3.4.4.2	Graphic Annunciator (PC Panel) or Mimic Panel	In every required provisions of a fire command center (FCC) or emergency control center (ECC).	Required	Required	Required
3.5	EXTINGUISHMENT REQUIREMENTS				
3.5.1	AUTOMATIC SPRINKLER (AS) SYSTEM	Ambulatory health care occupancies shall be protected throughout by an approved, supervised automatic sprinkler system.	NR	NR	Required
3.5.1.1	Basement Level/s	Basement level (car park/other usage) with fire area exceeding 1115 m <sup>2</sup> .	Required	Required	Required
3.5.1.1(1)		Multiple-level Basement (car park/other usage) regardless of fire area.	Required	Required	Required



Item	Fire Safety Provisions	Minimum Requirements	Low-rise	Mid-rise	High-rise
3.5.1.2	Vertical Openings: Convenience Stairways, Communicating Space & Atrium	Buildings with unprotected openings shall be protected throughout by an approved, supervised automatic sprinkler system.	Required	Required	Required
3.5.1.3	Isolated Hazardous Areas	Isolated hazardous areas shall be protected throughout by an approved, supervised automatic sprinkler system.	Required	Required	Required
3.5.2	OTHER AUTOMATIC SUPPRESSION SYSTEM	Where an automatic sprinkler system is required in Section 3.5.1 and 3.5.1.1 through 3.5.1.3, the appropriate type of automatic suppression system shall be permitted.	Permitted	Permitted	Permitted
3.5.3	Fire Hose Reel	Fire hose reels are required in buildings protected by an approved supervised automatic sprinkler system.	Required	Required	Required
3.5.4	Portable Fire Extinguisher	Applicable Portable Fire Extinguishers required in all buildings.	Required	Required	Required
3.5.5	Rising Main (Dry or Wet Standpipe)	Refer to Annex Fire Fighting System Annex_FFS_G1 Revisions 2021	Required	Required	Required
3.6	SMOKE CONTROL / VENTILATION REQUIREMENTS	Legend: NR-Not Required; NA-Not Applicable; NP-Not Permitted			
3.6.1	STAIRWELL/LOBBY	Design conditions per Annex ACMV_N1 Revisions 2021.			
3.6.1.1	Less than 9 m habitable height		No Reqmt	No Reqmt	No Reqmt
3.6.1.2	9 m to 15 m habitable height	Vent at top of stairwell	Required	NA	NA
		Stair ventilation openings at every floor level (for stairs along external walls)	Permitted	NA	NA
		Stairwell Pressurization	NR	NA	NA
3.6.1.3	>15 m to < 28 m habitable height	Vent at top of stairwell	NA	NP	NA
		Stair ventilation openings at every floor level (for stairs along external walls)	NA	Required	NA
		Stairwell Pressurization	NA	Permitted	NA



Item	Fire Safety Provisions	Minimum Requirements	Low-rise	Mid-rise	High-rise
3.6.1.4	≥28 m habitable height	Vent at top of stairwell	NA	NA	NP
		Stair ventilation openings at every floor level (for stairs along external walls)	NA	NA	NP
		Stairwell pressurization, smoke stop/fire fighting lobby pressurization	NA	NA	Required
	Connecting Basement Levels				
3.6.1.5	Two basement levels or ≤6 m deep, ≤2000 m <sup>2</sup> floor area	Vent at top of stairwell : * Permitted up to five (5) connecting above floors (2B+G+4 or less) or 12 m habitable height ; whichever is less; otherwise next below provisions shall apply.	*Required	NP	NP
		Stair ventilation openings at every floor level (for stairs along external walls)	Permitted	Required	NP
		Stairwell pressurization, smoke stop/fire fighting lobby pressurization	Permitted	Permitted	Required
3.6.1.6	Three basement levels or ≤ 9.1 m deep, ≤2000 m <sup>2</sup> floor area	Vent at top of stairwell : * Permitted up to two connecting above floors only (3B+G+1 or less) or 6m habitable height, whichever is less; otherwise next below provisions shall apply	*Required	NP	NP
		Stair ventilation openings at every floor level (stairs along external walls)	NA	NA	NA
		Stairwell pressurization, smoke stop/fire fighting lobby pressurization	Permitted	Permitted	Permitted
3.6.1.7	Two basement levels or ≤6 m deep, >2000 m <sup>2</sup> floor area	Vent at top of stairwell: * Permitted up to four (4) connecting floors (2B+G+3 or less) or 9 m habitable height ; whichever is less; otherwise next below provisions shall apply.	*Required	NP	NP
		Stair ventilation openings at every floor level (for stairs along external walls)	Required	NP	NP
		Stairwell pressurization, smoke stop/fire fighting lobby pressurization	Permitted	Required	Required



Item	Fire Safety Provisions	Minimum Requirements	Low-rise	Mid-rise	High-rise
3.6.1.8	Three basement levels or $\leq 9.1$ m deep, $>2000$ m <sup>2</sup> floor area, connecting one floor above only	Vent at top of stairwell : * Permitted up to two connecting above floors or 3 m habitable height only (3B+G+1 or less); whichever is less, otherwise next below provisions shall apply	*Required	NP	NP
		Stair ventilation openings at every floor level (stairs along external walls)	NA	NA	NA
		Stairwell pressurization, smoke stop/fire fighting lobby pressurization.	Permitted	Required	Required
3.6.1.9	Lowest basement level $>9.1$ m below ground level, regardless of floor area	Vent at top of stairwell	NP	NP	NP
		Stair ventilation openings at every floor level (stairs along external walls)	NP	NP	NP
		Stairwell pressurization, smoke stop/fire fighting lobby pressurization	Required	Required	Required
3.6.2	ESCAPE CORRIDOR PROTECTION	Design conditions per Annex ACMV_N1 Revisions 2021.			
3.6.2.1	Interior Corridors	Vents (Fixed or Automatic Opening)	Required in specific type of Occupancy: Healthcare Occupancies and in Detention and Correctional Occupancies		
		Mechanical Ventilation of Corridor			
		Pressurization of Corridor			
3.6.2.2	Corridor with side/s located along exterior walls	Vents (Fixed or Automatic Opening)			
		Mechanical Ventilation of Corridor			
		Pressurization of Corridor			
3.6.3	ATRIUM and OTHER FLOOR OPENINGS PROTECTION	Design conditions per Annex ACMV_N1 Revisions 2021.			
3.6.3.1	Malls (with floor openings connecting $>2$ floors)	Smoke Vents (Fixed or Automatic Opening)	Required	NP	NP
		Mechanical Smoke Exhaust Ventilation System/Engineered	Permitted	Required	Required
3.6.3.2	Other Occupancies (connecting $>3$ floor levels)	Smoke Vents (Fixed or Automatic Opening)	Required	Permitted	NP
		Mechanical Smoke Exhaust Ventilation System/Engineered	Permitted	Permitted	Required



Item	Fire Safety Provisions	Minimum Requirements	Low-rise	Mid-rise	High-rise
3.6.4	CAR PARKS/PARKING STRUCTURES PROTECTION	Design conditions per Annex ACMV_N1 Revisions 2021.			
3.6.4.1	Open Parking Structures	The open parking structure shall justify that no smoke stagnation will occur such as from a fire located somewhere in the middle of the car park; otherwise mechanical equipment that will aid in effective dispersal of smoke shall be provided	Required	Required	Required
3.6.4.2	Aboveground Enclosed Car Parks				
3.6.4.2.1	Aggregate floor area of $\leq 2000 \text{ m}^2$	Smoke Vents (Fixed or Automatic)	Required	Required	Permitted
		Mechanical Smoke Purging/Clearance	Permitted	Permitted	Required
		Engineered Smoke Control System	Permitted	Permitted	Permitted
3.6.4.2.2	Aggregate floor area of $> 2000 \text{ m}^2$	Smoke Vents (Fixed or Automatic)	Required	NP	NP
		Mechanical Smoke Purging/Clearance	Permitted	Required	NP
		Engineered Smoke Control System	Required	Permitted	Required
3.6.4.3	Belowground Car Parks		$\leq 6\text{m}$ Deep	$> 6\text{m} -$ $\leq 9.1 \text{ m}$ Deep	$> 9.1 \text{ m}$ Deep
3.6.4.3.1	Aggregate floor area of $\leq 2000 \text{ m}^2$	Smoke Vents (Fixed or Automatic)	Required	NP	NP
		Mechanical Smoke Purging/Clearance	Permitted	Required	Required
		Engineered Smoke Control System	Permitted	Permitted	Permitted
3.6.4.3.2	Aggregate floor area of $> 2000 \text{ m}^2$	Smoke Vents (Fixed or Automatic)	NP	NP	NP
		Mechanical Smoke Purging/Clearance	Required	NP	NP
		Engineered Smoke Control System	Permitted	Required	Required
3.7	CORRIDORS		Low-rise	Mid-rise	High-rise





Item	Fire Safety Provisions	Minimum Requirements	Low-rise	Mid-rise	High-rise
3.7.1	Exit Access Corridor WALLS	Where access to exits is provided by corridors, such corridors shall be separated from use areas by fire barriers having a minimum 1-hour fire resistance rating, unless one of the following conditions exists:	Required	Required	Required
3.7.1.1		Where exits are available from an open floor area, such as open plan buildings, corridors are not required to be separated.	Permitted	Permitted	Permitted
3.7.1.2		Within a space occupied by a single tenant limited to an area occupied under a single management and work the same hours.	Permitted	Permitted	Permitted
3.7.1.3		Within buildings protected throughout by an automatic sprinkler system.	Permitted	Permitted	Permitted
3.7.2	OPENINGS Exit Access Corridor	All doors and other openings onto the exit access corridors shall have not less than 30 minutes fire protection rating unless the corridor serves spaces occupied by a single tenant.	Required	Required	Required
3.7.2.1	Self-closing Devices	Doors required to be protected in accordance with 3.7.2, shall be self-closing and self-latching.	Required	Required	Required
3.8	SUBDIVISION OF BUILDING SPACE				
3.8.1	OCCUPANCY SEPARATION	Ambulatory health care occupancies shall be separated from other tenants and occupancies and shall meet all of the following requirements:	Required	Required	Required
3.8.1.1	Walls	Walls shall have not less than a 1-hour fire resistance rating and shall extend from the floor slab below to the floor or roof slab above.	Required	Required	Required
3.8.1.2	Doors	Doors shall be constructed of not less than 44 mm thick, solid-bonded wood core or the equivalent and shall be equipped with positive latches.	Required	Required	Required



Item	Fire Safety Provisions	Minimum Requirements	Low-rise	Mid-rise	High-rise
3.8.1.3		Doors shall be self-closing and shall be kept in the closed position, except when in use.	Required	Required	Required
3.8.1.4	Windows	Any windows in the barriers shall be of fixed fire window assemblies in accordance with NFPA 101 Section 8.3.	Required	Required	Required
3.8.2	SMOKE COMPARTMENTS	Every story of an ambulatory health care occupancy shall be divided into not less than two smoke compartments, unless otherwise permitted by one of the following:	Required	Required	Required
3.8.2.1	Area < 465 m <sup>2</sup>	Where the area of the ambulatory health care occupancy is less than 465 m <sup>2</sup> per story and that area is protected by an approved automatic smoke detection system.	Required	Required	Required
3.8.2.2	Area < 929 m <sup>2</sup>	Where the area of the ambulatory health care occupancy is less than 929 m <sup>2</sup> per story and the building is protected throughout by an approved, supervised automatic sprinkler system	Required	Required	Required
3.8.2.3	Area in Adjoining Occupancy	An area in an adjoining occupancy shall be permitted to serve as a smoke compartment for an ambulatory health care occupancy if all of the following criteria are met:	Permitted	Permitted	Permitted
3.8.2.3(1)		The separating wall and both compartments meet the requirements of 3.7.	Required	Required	Required
3.8.2.3(2)		The ambulatory health care occupancy does not exceed 2100 m <sup>2</sup> , or	Required	Required	Required
3.8.2.3 (2)(a)		3720 m <sup>2</sup> in buildings protected throughout by an approved, supervised automatic sprinkler system.	Required	Required	Required
3.8.2.3(3)		Access from the ambulatory health care occupancy to the other occupancy is unrestricted.	Required	Required	Required
3.8.3	SIZE of SMOKE COMPARTMENTS	Smoke compartments shall not exceed one of the following:			
3.8.3.1		An area of 2100 m <sup>2</sup> .	Required	Required	Required
3.8.3.2		An area of 3720 m <sup>2</sup> in buildings protected throughout by an approved, supervised automatic sprinkler system.	Required	Required	Required



Item	Fire Safety Provisions	Minimum Requirements	Low-rise	Mid-rise	High-rise
3.8.4	TRAVEL Distance	The travel distance from any point to reach a door in a smoke barrier shall not exceed 61 m.	Required	Required	Required
3.8.5	ATRIUM within Smoke Compartments	The area of an atrium separated in accordance with NFPA 101 section 8.6.7 shall not be limited in size.	Permitted	Permitted	Permitted
3.8.6	SMOKE BARRIERS	Required smoke barriers shall be constructed in accordance with NFPA 101 section 8.5 and shall have a minimum 1-hour fire resistance rating, unless otherwise permitted by 3.8.9.	Required	Required	Required
3.8.7		The provisions of NFPA 101 section 8.5.6.5 and section 8.5.7.2 shall not apply.	Required	Required	Required
3.8.8		Smoke barriers shall be permitted to terminate at the required occupancy separation where the ambulatory health care occupancy is constructed as a separated multiple occupancy and the separation also meets the requirements for a smoke barrier.	Permitted	Permitted	Permitted
3.8.9	SMOKE Dampers	Smoke dampers shall not be required in duct penetrations of smoke barriers in fully ducted heating, ventilating, and air-conditioning systems for buildings protected throughout by an approved, supervised automatic sprinkler system.	Permitted	Permitted	Permitted
3.8.10	WINDOWS	Windows in the smoke barrier shall be of fixed fire window assemblies in accordance with NFPA 101 section 8.3.	Required	Required	Required
3.8.11	OCCUPANT LOAD (SMOKE COMPARTMENTS)	Not less than 1.4 net m <sup>2</sup> per ambulatory health care facility occupant shall be provided within the aggregate area of corridors, patient rooms, treatment rooms, lounges, and other low hazard areas on each side of the smoke compartment for the total number of occupants in adjoining compartments.	Required	Required	Required
3.8.12	DOORS in SMOKE BARRIER	Doors in smoke barriers shall be not less than 44 mm thick, solid-bonded wood core or the equivalent and shall be self-closing or automatic-closing.	Required	Required	Required
3.8.13	HARDWARE in Doors	Latching hardware shall not be required on smoke barrier cross-corridor doors.	Permitted	Permitted	Permitted



Item	Fire Safety Provisions	Minimum Requirements	Low-rise	Mid-rise	High-rise
3.8.14	VISION PANELS in Doors	A vision panel consisting of fire-rated glazing in approved frames shall be provided in each cross-corridor swinging door and at each cross-corridor horizontal-sliding door in a smoke barrier.	Required	Required	Required
3.8.15		Vision panels in doors in smoke barriers, if provided, shall be of fire-rated glazing in approved frames.	Required	Required	Required
3.8.16		Rabbets, bevels, or astragals shall be required at the meeting edges, and stops shall be required at the head and sides of door frames in smoke barriers.	Required	Required	Required
3.8.17		Center mullions shall be prohibited in smoke barrier door openings where pairs of cross-corridor doors are provided.	NP-Not Permitted	NP-Not Permitted	NP-Not Permitted
3.9	(Reserved).				
<b>4.0</b>	<b>SPECIAL PROVISIONS</b>	<b>Special Provisions for Firefighting and Rescue shall comply with QCD FLS Annex and as modified in item 4.0 of this FLS Occupancy Chapter.</b>			
4.1	FIRE (EMERGENCY) COMMAND CENTER (FCC)	QCD FLS Annex_A5 – Revisions_2021.	Not Required	Not Required	Required
4.1.1	Exemptions	In other than high-rise buildings, instead of a dedicated FCC; lobbies or other spaces adjacent to the main entrance/s may be permitted.	Permitted	Permitted	NP-Not Permitted
4.2	FIREMAN'S ACCESS PANELS/ OPENINGS	QCD FLS Annex_A3 – Revisions_2021	Required	Required	Required
4.3	FIRE LIFTS (FIRE SERVICE ACCESS ELEVATORS)	QCD FLS Annex_A4 – Revisions_2021	Not Required	Not Required	Required
4.3.1		The building basement/s is more than nine (9) meters below the average ground level (grade plane).	Required	Required	Required
4.3.2	FIREFIGHTING LOBBY	QCD FLS Annex_A2 – Revisions_2021	Required	Required	Required
4.3.3	SMOKE-STOP LOBBY	QCD FLS Annex_A2 – Revisions_2021	Required	Required	Required



Item	Fire Safety Provisions	Minimum Requirements	Low-rise	Mid-rise	High-rise
4.4	AMBULANCE STRETCHER ACCOMMODATION	QCD FLS Annex_A4 – Revisions_2021	Not Required	Required	Required
4.5	EXTERNAL ACCESS TO SITE AND BUILDINGS	QCD FLS Annex_A3 – Revisions_2021	Required	Required	Required
4.5.1	SITE ACCESS/ACCESS ROAD	For gated facility development a 4.0 m wide access road and 4.5 m clear height vertical clearance entry gate or site access shall be provided.	Required	Required	Required
4.5.2	FIRE ENGINE HARDSTANDING (FEH)	FEH with longer side parallel to the façade of the building shall be provided in buildings exceeding the habitable height of 10 m.	Required	Required	Required
4.6	REFUGE FLOORS	QCD FLS Annex_A1 – Revisions_2021	NA-Not Applicable	NA-Not Applicable	Required
4.7	(Reserved).				
<b>5.0</b>	<b>BUILDING SERVICES and FIRE PROTECTION EQUIPMENT</b>	<b>Building Services and Fire Protection Equipment shall comply with the applicable NFPA codes and standards and QCD FLS Annex.</b>			
5.1	ELECTRICAL SYSTEM	Electrical wiring and equipment shall be in accordance with NFPA 70.	Required	Required	Required
5.1.1	ELECTRICAL EQUIPMENT/PANEL ROOMS AND SIMILAR ROOMS/ SPACES	QCD FLS Annex _A7 – Revisions_2021	Required	Required	Required
5.1.2	EMERGENCY GENERATORS AND STANDBY POWER SYSTEMS.	Emergency generators and standby power systems shall be installed, tested, and maintained in accordance with NFPA 110.	Required	Required	Required
5.1.3	STORED ELECTRICAL ENERGY SYSTEMS	Stored electrical energy systems shall be installed, tested, and maintained in accordance with NFPA 111.	Required	Required	Required



Item	Fire Safety Provisions	Minimum Requirements	Low-rise	Mid-rise	High-rise
5.2	COMMERCIAL COOKING OPERATIONS	Where permitted, commercial cooking operations shall be protected in accordance with NFPA 96.	Required	Required	Required
5.3	ELEVATORS, ESCALATORS, and CONVEYORS	An elevator, shall not be considered a component in a required means of egress and shall be in accordance with NFPA 101 section 9.4.	Required	Required	Required
5.3.1	NUMBER OF CARS	The number of elevator cars permitted in a hoistway shall be not more than three (3).	Required	Required	Required
5.3.2	OPENINGS TO EXIT ENCLOSURES	Conveyors, elevators, dumbwaiters, and pneumatic conveyors serving various stories of a building shall not open to an exit enclosure.	Required	Required	Required
5.4	WASTE and LINEN HANDLING SYSTEM	Chutes and its associated trash collection storage rooms and service opening rooms, when provided shall comply with NFPA 101 section 9.5.	Required	Required	Required
5.4.1		Approved waste/linen chutes and transport systems, including gravity waste chutes, full pneumatic waste conveying systems, and gravity pneumatic waste conveying systems, shall comply with the provisions of NFPA 82.	Required	Required	Required
5.4.1.1	Construction	Chutes, shall be separately enclosed by walls or partitions of not less than 2-hrs fire resistance rating and chute intake openings protection of 1.5-hour fire protection rating.	Required	Required	Required
5.4.1.2	Trash/Linen Collection Storage Rooms	Chutes, shall have its associated trash collection, service opening rooms separately enclosed by walls of not less than 1-hr fire resistance rating and openings protection of 3/4-hour fire protection rating.	Required	Required	Required
5.4.1.3		The doors of chutes shall open only to a trash/linen collection, service opening room, laundry storage room or to a room that is designed and used exclusively for accessing the chute opening.	Required	Required	Required



Item	Fire Safety Provisions	Minimum Requirements	Low-rise	Mid-rise	High-rise
5.4.2	GRAVITY CHUTES	A waste/linen chute shall extend (full size) at least 0.90 m. above the roof of a building.	Required	Required	Required
5.4.2.1	Chute Venting	The chute shall be open to the atmosphere, with the opening being the same cross-sectional area as the chute.	Required	Required	Required
5.5	FIRE PUMPS				
5.5.1	FIRE PUMPS ROOM	QCD FLS Annex _A6 – Revisions_2021	Required	Required	Required
5.6	SUBSTATION and SWITCHGEARS	QCD FLS Annex _A8 – Revisions_2021	Required	Required	Required
5.7	(Reserved).				

