



SCDF
The Life Saving Force
... for a safer Singapore

SINGAPORE CIVIL DEFENCE FORCE



Date : 2 Mar 2020

Our Ref: CD/FSSD/12/02/03/01

Registrar, Board of Architects
Registrar, Professional Engineers Board
President, Singapore Institute of Architects
President, Institution of Engineers, Singapore
President, Association of Consulting Engineers, Singapore

Dear Sir/Mdm,

AMENDMENTS TO FIRE CODE 2018 – 3rd BATCH OF AMENDMENTS

SCDF would like to issue the latest round of amendments to the Code of Practice for Fire Precautions in Buildings 2018 (Fire Code 2018). The amendments which were deliberated and accepted by the Fire Code Review Committee are attached as Annex A, B & C of this circular.

2. Amendments stipulated in Annex A, B & C of this letter, shall take effect from the dates specified therein. For those amendments that are to take effect at future dates as specified in Annex A, B & C, Qualified Persons are encouraged to comply with the requirements at any time before the effective dates. Any proposed plans of fire safety works for new buildings or existing buildings that are submitted to SCDF for approval on or after 2 Mar 2020 shall be subjected to the amendments made to the Fire Code.
3. Please convey the contents of this circular to members of your Board/ Institution/ Association. This circular is also available in CORENET's e-Info: <http://www.corenet.gov.sg/einfo>.
4. For any queries, you may contact Mr Randy Tan at DID: 68481461 or Mr Tan Yi Yang at DID: 68481734.



SCDF – A member of the Home Team

HQ SINGAPORE CIVIL DEFENCE FORCE, 91 UBI AVENUE 4, SINGAPORE 408827
TEL: 68481467 FAX: 68481490 EMAIL: TAN_Chung_Yee@scdf.gov.sg

Yours faithfully

(transmitted via email)

LTC Tan Chung Yee
Fire Safety & Shelter Department
for Commissioner
Singapore Civil Defence Force

Distribution list

CE, EMA
CEO, BCA
CEO, URA
CEO, HDB
CEO, JTC
CE, LTA
CE, Enterprise Singapore
President, REDAS
President, IFE
President, SISV
President, FSMAS
President, SCAL
Honorary Secretary, SPM
Manager (Fire Safety & Building Control Unit), DSTA
SCDF Fire Safety Standing Committee
Fire Code Review Committee



SCDF – A member of the Home Team

HQ SINGAPORE CIVIL DEFENCE FORCE, 91 UBI AVENUE 4, SINGAPORE 408827
TEL: 68481467 FAX: 68481490 EMAIL: TAN_Chung_Yee@scdf.gov.sg

Annex A

S/N	Clause No	Amendment Date	Effective Date	Clause Status	Clause Before Amendment	Clause After Amendment
1	1.4.3	2 Mar 2020	2 Mar 2020	Clarification	<p>Ambulatory healthcare centre</p> <p>“Ambulatory healthcare centre” is a building, or part thereof, used for providing services on an out-patient basis for treatment for patients which would render them incapable of taking action for self-preservation or safety under emergency conditions without assistance from others, such as haemodialysis units or surgical treatment requiring general anaesthesia.</p>	<p>Ambulatory healthcare centre care facility</p> <p>“Ambulatory healthcare centre care facility” is a building, or part thereof, used for providing services on an out-patient basis for treatment for patients which would render them incapable of taking action for self-preservation or safety under emergency conditions without assistance from others, such as haemodialysis units or surgical treatment requiring general anaesthesia. Such facilities shall include the followings:</p> <ul style="list-style-type: none"> a. Renal dialysis day centres; b. Aesthetic clinics; c. Non-mental rehabilitation day centres; and d. Endoscopy clinics.
2	1.4.30	2 Mar 2020	2 Mar 2020	Clarification	<p>Custodian-care facility</p> <p>“Custodian-care facility” is a building or part thereof, without stay in accommodation, used by persons who,</p>	<p>Custodian care facility</p> <p>“Custodian care facility” is a building or part thereof, without stay in accommodation, used by persons who,</p>

					because of age, or physical or mental disabilities, are unable to care for their self-preservation and safety. Such buildings shall include nurseries for children under 6 years of age, senior day care centres and institutions for the mentally disabled.	because of age, or physical or mental disabilities, are unable to care for their self-preservation and safety. Such buildings shall include nurseries for children under 6 years of age, senior day care centres and institutions for the mentally disabled. facilities include the followings: a. Nurseries for children under 6 years of age (e.g. kindergarten, childcare day centres, infant care day centres, etc.); b. Senior care day centres; c. Mentally disabled day care centres; d. Intellectually disabled day care centres; e. Mental rehabilitation day care centres; and f. Psychiatric day care centres.
3	1.4.68	2 Mar 2020	2 Mar 2020	Clarification	Hospital “Hospital” is a building used for medical and surgical care and shall include healthcare facilities with 24-hr or inpatient services, such as general hospitals, hospitals for	Hospital “Hospital” is a building used for medical and surgical care and shall include healthcare facilities with 24-hr or inpatient services, such as general hospitals, hospitals for psychiatric care, children's

					psychiatric care, children's hospitals, etc..	hospitals, etc.. buildings include the following: a. General hospitals; b. Psychiatric hospitals (Institute of mental health); c. Children/Woman hospitals; and d. Community hospitals.
4	1.4.74	2 Mar 2020	2 Mar 2020	Clarification	Nursing home, convalescent home, home for the aged & hospice These refer to a building, or part thereof, used for the housing and nursing care of persons on a 24hr basis who, because of physical incapacity, may be unable to care for their own needs and safety without assistance of other persons.	Nursing home, convalescent home, home for the aged & hospice care facility These “Nursing care facility” refers to a building, or part thereof, used for the housing and nursing care of persons on a 24-hr basis who, because of physical incapacity, may be unable to care for their own needs and safety without assistance of other persons. These facilities provide inpatient medical care and include the followings: a. Nursing homes; b. Convalescent homes; and c. Hospice.
5	1.4.100	2 Mar 2020	2 Mar 2020	Clarification	Supervisory care facility	Supervisory care facility

					<p>“Supervisory care facility” is a building or part thereof, used for the housing, on a 24-hr basis, of mental health patients who may be capable of self-preservation but require supervision and are receiving therapy, training or other health-related care and for whom there may be security measures not under their control.</p>	<p>“Supervisory care facility” refers to a is a building or part thereof, used for the housing, on a 24-hr basis, of mental health patients, natal cares, aged and individuals under welfare cares, who may be capable of self-preservation but require supervision and are receiving therapy, training or other health-related care and for whom there may be security measures not under their control. Such facilities shall include the followings:</p> <ul style="list-style-type: none"> a. Homes for intellectually disabled; b. Psychiatric rehabilitation homes c. Dementia homes; d. Pre/post natal care centres; and e. Welfare homes.
6	1.4.63	2 Mar 2020	2 Mar 2020	Clarification	<p>Habitable floor</p> <p>“Habitable floor” refers to all floors in a building, including the roof level. The roof level can be taken as non-habitable if it is not used for any purpose/activity other than housing M&E and/or telecommunication plants/equipment, e.g. lift motors, fire</p>	<p>Habitable floor</p> <p>“Habitable floor” refers to all floors in a building, including the roof level. The roof level can be taken as non-habitable if it is not used for any purpose/activity other than housing M&E and/or telecommunication plants/equipment, e.g. lift motors, fire pumps, generators, fire</p>

					pumps, generators, fire hose reel pumps, water supply pumps, water tanks, cooling towers, solar photovoltaic panels, supply/ exhaust fans with associated ductwork, air-con condensing units, telecommunication antenna, satellite dishes and public warning sirens, etc..	hose reel pumps, water supply pumps, water tanks, cooling towers, solar photovoltaic panels, supply/ exhaust fans with associated ductwork, air-con condensing units, telecommunication antenna equipment , satellite dishes and public warning sirens, etc..
7	1.4.112	2 Mar 2020	2 Mar 2020	Clarification	Nil	<p>Mechanical ventilation</p> <p>“Mechanical ventilation” refers to any system that uses mechanical means such as ventilation fan, to introduce outdoor air to a space when natural ventilation mode cannot be achieved during normal and fire emergency situations. This includes supply ventilation, exhaust ventilation, pressurisation, smoke purging, mechanical engineered smoke control systems, balanced systems that consist of both supply and exhaust ventilations, etc..</p>
8	1.4.113	2 Mar 2020	2 Mar 2020	Clarification	Nil	<p>Pressurisation</p> <p>“Pressurisation” refers to a mechanical ventilation system that introduce positive differential pressure to a space/room to prevent smoke ingress during a fire emergency.</p>
9	1.4.84	2 Mar 2020	2 Mar 2020	Deletion	Public Building	Public Building

					<p>“Public building” refers to a building, or part thereof, that is used, constructed or adapted to be used as a shop, office, hospital or place of public resort. Places of public worship such as churches, chapels, mosques, temples and places where religious ceremonies are performed are not considered public buildings.</p>	<p>“Public building” refers to a building, or part thereof, that is used, constructed or adapted to be used as a shop, office, hospital or place of public resort. Places of public worship such as churches, chapels, mosques, temples and places where religious ceremonies are performed are not considered public buildings.</p>
10	2.3.1c.	2 Mar 2020	2 Mar 2020	Clarification	<p>Fire escape plan</p> <p>A fire escape plan shall be provided for all buildings except PG I and displayed in common lobbies or lift lobbies such that they are easily viewable by the building occupants and the general public passing through these common areas. The fire escape plan shall have legible lettering and the fire escape routes made clear to the viewer. It shall clearly show the layout of the floor in the correct orientation and highlight the escape routes (in relation to viewer’s location), escape corridors and exit staircases using appropriate colours, directional signs and words. Other information required on the plan are for firefighting and evacuation purposes</p>	<p>Fire escape plan</p> <p>(1) A fire escape plan shall be provided for all buildings except PG I and displayed in common lobbies or lift lobbies such that they are easily viewable by the building occupants and the general public passing through these common areas. The fire escape plan shall have legible lettering and the fire escape routes made clear to the viewer. It shall clearly show the layout of the floor in the correct orientation and highlight the escape routes (in relation to viewer’s location), escape corridors and exit staircases using appropriate colours, directional signs and words. The information required on the plan are</p>

					<p>and shall include the locations of the following:</p> <ol style="list-style-type: none"> (1) Fire lifts; (2) Evacuation lifts; (3) PWD holding points; (4) Hose reels; (5) Fire extinguishers; (6) Manual alarm call points; and (7) Rising mains. 	<p>only for firefighting and evacuation purposes and shall include the locations of the following:</p> <ol style="list-style-type: none"> (a) Fire lifts; (b) Evacuation lifts; (c) PWD holding points; (d) Hose reels; (e) Fire extinguishers; (f) Manual alarm call points; and (g) Rising mains. <p>(2) For ensuring legibility of the fire escape plan for buildings with large floor areas, partial plan showing minimally 2 escape routes is acceptable. The plan shall show the egress paths to at least 2 remotely located exits/exit staircases, including the PWD holding points.</p>
11	2.4.1	2 Mar 2020	2 Mar 2020	Clarification	<p>General</p> <p>a. The following buildings/usages are exempted from these requirements:</p>	<p>General</p> <p>a. The following buildings/usages are exempted from these requirements:</p>

					<ul style="list-style-type: none"> (1) PG I and II buildings; (2) healthcare occupancies, except custodian-care facility and ambulatory healthcare centre; (3) industrial buildings/usages that are exempted from barrier-free accessibility compliance, as required by the authority having jurisdiction on accessibility in the built environment; and (4) non-residential buildings/usages, such as car parks and clubhouses located within residential developments and which are intended for ancillary use, are not required to comply with these requirements. 	<ul style="list-style-type: none"> (1) PG I and II buildings; (2) healthcare occupancies, except custodian-care facility and ambulatory healthcare centre hospitals and nursing care facilities,; (3) industrial buildings/usages that are exempted from barrier-free accessibility compliance, as required by the authority having jurisdiction on accessibility in the built environment; and (4) non-residential buildings/usages, such as car parks and clubhouses located within residential developments and which are intended for ancillary use, are not required to comply with these requirements. (5) aboveground storeys of PG III to VIII buildings, which are not served by any lift.
12	2.4.3	2 Mar 2020	2 Mar 2020	Clarification	Communication provisions	Communication provisions

					<p>A suitable means of communication shall be provided between the PWD holding point and FCC or any 24-hourly manned station, for PWDs to call for assistance during a fire emergency. It can be in the form of a distress button or voice communication. The means of communication shall:</p> <ol style="list-style-type: none"> a. be located between 800mm and 1.2m above ground level; b. be appropriately labelled; c. be provided with prominently displayed clear instruction sign on its operation; and d. when the device for communication is activated, it shall generate a clear visual indication to indicate that the distress signal has been relayed. 	<p>A suitable means of communication, as required under Cl.6.6.5c.(4), shall be provided between the PWD holding point and FCC or any 24-hourly manned station, for PWDs to call for assistance during a fire emergency. It can be in the form of a distress button or dedicated voice communication. The dedicated voice communication handset shall always be accessible and not to be locked. The means of communication shall:</p> <ol style="list-style-type: none"> a. be located between 800mm and 1.2m above groundfloor level; b. be appropriately labelled; c. be provided with prominently displayed clear instruction sign on its operation; and d. when the device for communication is activated, it shall generate a clear visual indication to indicate that the distress signal has been relayed.
13	3.10.2	2 Mar 2020	2 Mar 2020	Clarification	<p>The exit staircase shall be separated from other parts of the building by a masonry structure or drywall complying with <i>Cl.3.8.7b</i>. which shall have fire resistance for not less than the period required by <i>Cl.3.3</i> for elements of structure.</p>	<p>The exit staircase shall be separated from other parts of the building by a masonry structure or drywall complying with <i>Cl.3.8.7b</i>. which shall have fire resistance for not less than the period required by <i>Cl.3.3</i> for elements of structure. The flight, landing and supporting structures of the exit staircase shall comply with</p>

						<i>Cl.3.10.1 and fire resistance rating is not required.</i>
14	6.3.6	2 Mar 2020	2 Mar 2020	Clarification	<p>Home Fire Alarm Device (HFAD)</p> <p>For individual residential units under PG I or II, HFAD shall be installed in accordance with all of the following requirements:</p> <p>a. HFAD shall possess the following features and comply with all the requirements stated below:</p> <ol style="list-style-type: none"> (1) operate on smoke detection technology alone, or have a multi-sensor detector (a detector with multiple sensors built into the device) with smoke detection capability; (2) indicator lights to inform users on the status/condition of the device(s); (3) temporary silence/reset feature to address false alarms; (4) alarm sounder with sound level compliant with any standard listed in item (7); 	<p>Home Fire Alarm Device (HFAD)</p> <p>For individual residential units under PG I or II, HFAD shall be installed in accordance with all of the following requirements:</p> <p>a. HFAD shall possess the following features and comply with all the requirements stated below:</p> <ol style="list-style-type: none"> (1) operate on smoke detection technology alone, or have a multi-sensor detector (a detector with multiple sensors built into the device) with smoke detection capability; (2) indicator lights to inform users on the status/condition of the device(s); (3) temporary silence/reset feature to address false alarms; (4) alarm sounder with sound level compliant with any standard listed in item (7);

					<p>(5) test button to allow the device(s) to be tested/checked periodically;</p> <p>(6) to be powered by long-life built-in battery (i.e. battery that lasts at least 10 years) with low battery alert capability, or to be wired to household electrical supply;</p> <p>(7) detector design to comply with any of the following standards (EN 14604, AS 3786, UL 217);</p> <p>(8) where two or more HFADs are installed, all devices shall be interconnected (either wired or wirelessly) such that when one of the HFADs is triggered, all connected HFADs shall sound an alarm if they are installed on 2 or more storeys (see <i>Diagram 6.3.6a.(8)</i>); and</p>	<p>(5) test button to allow the device(s) to be tested/checked periodically;</p> <p>(6) to be powered by long-life built-in battery (i.e. battery that lasts at least 10 years) with low battery alert capability, or to be wired to household electrical supply;</p> <p>(7) detector design to comply with any of the following standards (EN 14604, AS 3786, UL 217);</p> <p>(8) where two or more HFADs are installed, all devices shall be interconnected (either wired or wirelessly) such that when one of the HFADs is triggered, all connected HFADs shall sound an alarm simultaneously if they are installed on 2 or more storeys (see <i>Diagram 6.3.6a.(8)</i>); and</p>
15	8.2.4	2 Mar 2020	2 Mar 2020	Clarification	<p>b. Size</p> <p>A FCC shall be of adequate size to house all the terminals and supervisory/ control equipment,</p>	<p>b. Supporting equipment</p> <p>A FCC is a room within a building dedicated to the controlling and monitoring of fire protection systems</p>

					<p>etc. of the building's fire protection/detection systems and a free working space (unobstructed by door swing) of at least 6m².</p>	<p>during a fire emergency. As such, equipment/services not meant for this purpose shall not be located inside the FCC with exception of the following:</p> <ol style="list-style-type: none"> (1) Lift supervisory panel. (2) Background music system connected to one-way emergency voice communication system rack. (3) Workstation/server rack for security card access & CCTV system for security monitoring. (4) Workstation/server rack for car park access control system. (5) Workstation/server rack for fire alarm's colour graphics system. (6) Workstation/server rack for BMS/BAS monitoring and controlling other ACMV system. (7) Walkie-talkie charging stations. (8) UPS system with totally sealed battery capacity not exceeding 750Amp-hr.
--	--	--	--	--	---	---

						<p>c. Size</p> <p>A FCC shall be of adequate size to house all the terminals and supervisory/ control equipment etc. of the building's fire protection/detection systems, as well as a free working space (unobstructed by door swing) of at least 6m² and minimum clear width of 2m.</p> <p>d. Location</p> <p>.....</p>
16	<u>Table 1.4A</u>	2 Mar 2020	2 Mar 2020	Clarification	Existing <u>Table 1.4A</u>	See <u>Annex B</u> (affected portions of <u>Table 1.4A</u>)
17	<u>Table 1.4B</u>	2 Mar 2020	2 Mar 2020	Clarification	Existing <u>Table 1.4B</u>	See <u>Annex C</u> (affected portions of <u>Table 1.4B</u>)

TABLE 1.4A - DESIGNATION OF PURPOSE GROUPS		
Purpose Group (PG)	Descriptive Title	Purpose for which building or part of the building is used or intended to be used
I	Small residential	Residential dwelling house, such as:
		<ul style="list-style-type: none"> • bungalow • detached house • semi-detached house • terrace house
II	Other residential	Accommodation for residential purposes other than any premises comprised in PG I, such as:
		<ul style="list-style-type: none"> • apartment • cluster housing • condominium • flat • maisonette • town house
III	Institutional	Establishments used for treatment, care or maintenance of persons suffering from disabilities, such as:
		<ul style="list-style-type: none"> • community hospital • convalescent home • home for intellectually disabled • home for the aged • home for the spastic • hospice • hospital • psychiatric hospital • nursing home
		Establishments used for care or maintenance of young/dependent persons, such as:
		<ul style="list-style-type: none"> • children's home • correction centre • daycare centre • detention centre • dialysis centre • infant-care centre • rehabilitation centre • school for the spastic • senior activity centre • orphanage
		Establishments used for educational/training purposes, such as:
		<ul style="list-style-type: none"> • college • commercial/private school • enrichment centre • kindergarten/nursery • military camp • polytechnic • public school • tuition centre • university • vocational institution
		Establishments used for staff/worker lodging purposes, such as:
		<ul style="list-style-type: none"> • staff quarter • wardens' accommodation • workers' dormitory
IV	Office	Premises/ areas/spaces/floors used for the purposes of administration and clerical work, or as premises occupied with an office for the purposes of the activities therein carried on, such as:
		<ul style="list-style-type: none"> • banking • insurance • publisher • stock broker • telephone/telegraph operating

TABLE 1.4A - DESIGNATION OF PURPOSE GROUPS		
Purpose Group (PG)	Descriptive Title	Purpose for which building or part of the building is used or intended to be used
V	Shop	Premises/ areas/spaces/floors used for the following purposes (and/or any other similar trades or businesses):
		<ul style="list-style-type: none"> • beauty salon • book store • boutique • confectionary outlet • departmental store • drugstore • gift shop • hairdressing salon • jewellery shop • laundry • outpatient clinic • pawnshop • pet shop/clinic • polyclinic • provisional shop • shopping arcade • shopping centre • show flat • showrooms for sale of goods • supermarket • take-away F&B outlet/kiosk • ticketing agency • travel agency
VI	Factory	Premises/ areas/spaces/floors with manufacturing, processing, servicing or testing activities, such as:
		<ul style="list-style-type: none"> • aircraft hangar • chemicals • consumable products • data/server centre • electrical switching/transmitting • fireworks • food products • glassware • highly combustible substances • highly flammable products • incineration • metalwork • oil refinery • pharmaceutical • power generation • recycling • rubber • ship building • telecommunication exchange • vehicle repair/servicing • wafer • waste treatment/pumping • water treatment/pumping • woodwork
VII	Place of public resort	Premises/ areas/spaces/floors used for public accommodation purpose, such as:
		<ul style="list-style-type: none"> • backpacker hotel • boarding house • hotel • holiday resort • serviced apartment • student hostel
		Premises/ areas/spaces/floors used for educational purpose, such as:
		<ul style="list-style-type: none"> • auditorium • convention centre • exhibition centre • museum • public art gallery • public library
		Premises/ areas/spaces/floors used for social purpose such as:
		<ul style="list-style-type: none"> • community centre • private club

TABLE 1.4A - DESIGNATION OF PURPOSE GROUPS

Purpose Group (PG)	Descriptive Title	Purpose for which building or part of the building is used or intended to be used	
VII	Place of public resort	Premises/ areas/spaces/floors used for entertainment purpose, such as:	
		<ul style="list-style-type: none"> • casino • cinema • concert hall • discotheque 	<ul style="list-style-type: none"> • internet gaming centre • karaoke lounge • night club • theatre
		Premises/ areas/spaces/floors used for religious purpose, such as:	
		<ul style="list-style-type: none"> • church • mosque 	<ul style="list-style-type: none"> • temple
		Premises/ areas/spaces/floors used for body treatment purpose, such as:	
		<ul style="list-style-type: none"> • body massage • foot reflexology 	<ul style="list-style-type: none"> • gymnasium • Spa
		Premises/ areas/spaces/floors used for recreational purpose, such as:	
		<ul style="list-style-type: none"> • amusement centre • billiard/snooker centre • bowling centre • roof garden/terrace • sky garden/terrace 	<ul style="list-style-type: none"> • public sport complex • public swimming complex • stadium
		Premises / areas/spaces/floors used for F&B purpose, such as:	
		<ul style="list-style-type: none"> • cafeteria • canteen • coffee shop • eating house • fast food outlet 	<ul style="list-style-type: none"> • food court • hawker centre • Pub/bar • restaurant
Premises/ areas/spaces/floors used for transportation purpose, such as:			
<ul style="list-style-type: none"> • airport terminal • bus terminal 	<ul style="list-style-type: none"> • ferry terminal • train station 		
VIII	Storage	Premises/ areas/spaces/floors used for the purposes of storing, depositing or parking of goods, materials and/or vehicles, such as:	
		<ul style="list-style-type: none"> • coldroom • godown • store 	<ul style="list-style-type: none"> • vehicle park • warehouse
<p>Note: Requirements for buildings not listed in this Table, including but not limited to buildings used for the manufacture and/or storage of highly combustible substances and/or flammable liquids, etc., shall be consulted with the SCDF.</p>			

TABLE 1.4B : OCCUPANT LOAD FACTORS		
FUNCTIONAL SPACES	FACTOR (m ² /person)	REMARKS
Apartment, residential	15	calculated on habitable accessible floor areas of the unit
Area of refuge		
ambulatory health care facility	1.4	
custodian care facility	1.4	
hospital	2.8	
hospital	0.56	for area of refuge without patient accommodation
nursing home care facility	2.8	
nursing home care facility	0.56	for area of refuge without patient accommodation
supervisory care facility	0.56	
Auditorium/theatre		
With individual fixed seating	1.5	for assembly occupancy, it can be based on fixed seating for purpose of computing occupant load occupant load can be based on number of fixed seating
With fixed bench seating	-	occupant load based on 0.45m of length of the benches per person
Audio visual control room		
theatres/cinemas/concert halls	5	
others	5	
Choir gallery	1.5	
Dining area		
Hawker centre	1.5	
Fast food outlet	1	
others	1.5	
Exhibition area Exposition/Trade fair area	1.5	
Foyer		
bus terminal	1.5	
others	3	

TABLE 1.4B : OCCUPANT LOAD FACTORS			
FUNCTIONAL SPACES	FACTOR (m ² /person)	REMARKS	
Gallery	exhibits	2.5	
	choir	1.5	
	prayer	1.5	
	seating	1.5	or by number of fixed seating occupant load can be based on number of fixed seating
	trading	1.5	
	viewing	1.5	
	surgical viewing	3	
Guestroom / accommodation unit	15	<ul style="list-style-type: none"> accessible floor area of each room (including living area, toilet, etc.). Min. 2 persons per room or 15m²/person, whichever is higher 	
Indoor sport hall	school with multi-purpose hall	3	
	school without multi-purpose hall	1	
	others	3	
Laboratory	healthcare occupancy	20	
	schools/colleges/tertiary institutions	5	
	others	5	
Laundry	with machine operation	15	
	others	10	
Library room	stack area	10	
	reading area	5	
	others	5	
Lighting control room	theatres/cinemas/concert halls	5	
	others	5	
Maisonettes, residential	15	calculated on accessible floor areas of the unit	

TABLE 1.4B : OCCUPANT LOAD FACTORS		
FUNCTIONAL SPACES	FACTOR (m ² /person)	REMARKS
Multi-purpose hall / room	school/colleges	1
	others	1.5
Multi-purpose sports hall	public sport complex	3
	public swimming complex	3
	stadium	3
	others	3
Passenger arrival / departure areas	bus terminal	1.5
	others	3
Prayer hall/gallery	1.5	
Projection room	theatre/cinema/concert hall	5
	others	5
Seating gallery	1.5	or by number of fixed seating
Server room	30	
Staff quarter	religious buildings	15
	nursing home care facility	5
Student bedroom	15	<ul style="list-style-type: none"> including other areas such as attached living area or toilet min. 2 persons per room or 15m²/person, whichever is higher
Surgical viewing gallery	3	
Trading gallery	1.5	
Training area	public sports complex	3
	public swimming complex	3
	stadium	3
	others	3
Viewing gallery	1.5	
Workshop	Institutional buildings	5
	Industrial buildings	10