

TECHNICAL GUIDELINES FOR FIRE SAFETY IN TEMPORARY BUILDING IN CONSTRUCTION SITES

1. SITE PLANNING

- 1.1 All temporary building shall be sited close to the boundary line adjacent to any public road or any internal driveway that is accessible by the fire appliances. If the temporary buildings are sited more than 100m away from the public road, a private hydrant shall be provided to service these temporary buildings.
- 1.2 If a building must be sited adjacent to a common boundary, it shall have a minimum setback of 4m from the common boundary.
- 1.3 The separation distance between two adjacent buildings shall be at least 4m.

2. MATERIALS OF CONSTRUCTION

- 2.1 Non-combustible material is preferred for the construction of the temporary building, though timber is also acceptable.
- 2.2 For a timber constructed building, if the longer dimension of the building (excluding the staircase) exceeds 20m, the building shall be divided in compartments by imperforate, full height non combustible walls having min 1 hour fire resistance rating. The maximum length of each compartment shall not exceed 20m. For internal corridors as in section 3.4, the walls facing the corridor shall be of non-combustible construction having min 1- hour fire resistance rating. All doors opening into the corridor shall have min ½ hour fire resistance rating.

3. LAYOUT AND MEANS OF ESCAPE

- 3.1 Each building shall not exceed 3 storeys or 2 storeys, where the escape of person is via an internal corridor, as provided for under Section 3.4.
- 3.2 Staircases and corridors shall have a minimum clear width of 1.0m.
- 3.3 If the layout of rooms on an upper floor is such that the escape of persons is via an external corridor (ie. a corridor with its longer side fully open to the external air), the following requirements shall be applicable:

- 3.3.1 at least one staircase is required if the one-way travel distance from the most remote point of the floor to the foot the staircase on ground level does not exceed 20m for steel constructed building, and 15m for timber constructed building;
- 3.3.2 if the requirement in Clause 3.3.1 cannot be fulfilled, at least two staircases shall be provided, at least one at each end of the building, and the two- way travel distance from the most remote point of the floor to the foot of either of the staircases shall not exceed 45m for steel constructed building, and 30m for timber constructed building,
- 3.4 If the layout of rooms on an upper floor is such that the escape of the persons is via an internal corridor, the following requirements shall be applicable:
- 3.4.1 the building shall not exceed 2 storeys in height;
- 3.4.2 where one staircase is provided, the one-way travel distance from the most remote point of the floor to the foot of the staircase on ground level shall not exceed 15m for steel constructed building, and 10m for timber constructed building;
- 3.4.3 If the requirement in Clause 3.4.2 cannot be fulfilled, at least two staircases shall be provided, at least one at each end of the building, and the two- way travel distance from the most remote point of the floor to the foot of either of the staircases shall not exceed 30m for steel constructed building, and 20m for timber constructed building;
- 3.4.4 The internal corridor shall have a width of minimum 1.5m

	<u>Travel Distance (m)</u>	
	Steel Construction	Timber Construction
<u>Open- sided Corridor</u>		
Single Staircase	20	15
Minimum 2 Staircases	45	30
<u>Internal Corridor</u>		
Single Staircase	15	10
Minimum 2 Staircases	30	20

- 3.5 All staircases shall be unenclosed. All open sides of the staircase and external corridor shall be provided with railings of minimum height 900mm.

4 HAZARDOUS AREAS

- 4.1 Cooking facilities shall either be located at least 5m away from or be compartmentalised from any accommodation spaces by walls and floors of non-combustible construction having a minimum half-an-hour fire resistance.
- 4.2 All stores containing highly flammable substances shall not be allowed in the same building used for accommodation purpose, and be located at least 5m away from such building.

5 FIRE FIGHTING EQUIPMENT

- 5.1 At least 2 numbers of portable fire extinguishers of 13A rating each, shall be provided next to every staircase on every floor of any accommodation spaces.
- 5.2 At least 2 numbers of portable fire extinguishers of 70B rating each, shall be provided at every cooking area.
- 5.3 A manual fire alarm bell shall be provided within the premises, such that it is within 30m from any part of the building. A hand-held gong or any form of electric bell shall be deemed an acceptable sounding device; and such sounding devices shall be located such that they are audible from every part of the building.

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CHECKLIST FOR FIRE SAFETY INSPECTIONS
FOR TEMPORARY BUILDINGS IN CONSTRUCTION SITES

S/NO	ITEMS	YES	NO
1	<u>SITE PLANNING</u>		
	a. The location of temporary buildings shall be located close to any public road or any internal driveway		
	b. If the temporary building is located adjacent to a common boundary: 1) It should have a minimum setback of <u>4m</u> 2) If the façade facing the common boundary is protected by a minimum one-hour fire resistance board, <u>4m</u> setback is not required.		
	c. The separation distance between adjacent buildings shall be at least <u>4m.</u>		
	d. If the facades facing each other are provided by a minimum one-hour fire resistance board, <u>4m</u> separation is not required.		
2	<u>MATERIALS OF CONSTRUCTION</u>		
	a. The material for the construction of the building shall be non-combustible or timber		
	b. For timber constructed temporary building:		
	1) If the length of the building (excluding the staircase) >20m, imperforate non-combustible walls shall be provided for compartmentation. 2) The length of the each compartment shall not > 20 m. 3) For internal corridors, minimum half-an-hour fire resistance doors are required.		

S/NO	ITEMS	YES	NO
3	<u>LAYOUT AND MEANS OF ESCAPE</u>		
	a. Buildings shall not exceeding 3 storeys		
	b. Staircases and corridors shall have minimum clear width of 1m		
	c. If the escape route is via the external corridor, 1) If the one way travel distance from the remote point of the floor to the foot of the staircase at the ground < 20 m for steel constructed buildings and 15m for timber constructed buildings, at least one staircase shall be provided. 2) For two way travel distance from the remote point of the floor to the foot of either staircases shall not exceed 45m for steel constructed building and 30m for timber constructed building.		
	d. If the escape route is via internal corridor: 1) the building shall not exceed 2 storeys in height. 2) If the one way travel distance from the remote point of the floor to the foot of the staircase at the ground < 15 m for steel constructed building and 10 m for timber constructed buildings, at least one staircase shall be provided 3) For two way travel distance from the remote point of the floor to the foot of either staircases shall not exceed 30 m for steel constructed building and 20 m for timber constructed building. 4) The internal corridor shall have a width of minimum 1.5m .		

S/NO	ITEMS	YES	NO
	5) All staircases shall be: <ul style="list-style-type: none"> a) unenclosed; and b) provided with railing of minimum 900mm in height. 		
4	<u>HAZARDOUS AREAS</u>		
	a. Cooking facilities shall be: <ul style="list-style-type: none"> 1) Located at least 5m away from any accommodation Spaces, or 2) compartmentalised by non-combustibles walls and floors having minimum half-an-hour fire resistance rating. 		
	b. All stores containing highly flammable substance shall be located at least 5m away from the building .		
5	<u>FIRE-FIGHTING EQUIPMENT</u>		
	a. 2 nos. of portable fire extinguishers of 13A ratings each shall be provided next to every staircase on every floor of any accommodation spaces.		
	b. 2 nos. of portable fire extinguisher of 70B ratings each shall be provided at every cooking area.		
	c. A manual fire alarm bell shall be provided such that it is within 30 m from any part of the building. <ul style="list-style-type: none"> 1) The sounding device shall be in any form of electric bell or hang-held gong. 2) The sounding device shall be located such that they are audible from every part of the building. 		