

SINGAPORE CIVIL DEFENCE FORCE

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

Your Ref :

Date : 31 July 2014



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President, Singapore Institute of Architects (SIA)
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Dear Sir/Mdm

FIRE SAFETY REQUIREMENTS FOR OUTDOOR REFRESHMENT AREAs (ORAs)

SCDF has recently reviewed its fire safety circular (reference FSR 6: 2011) on the fire safety requirements for Outdoor Refreshment Areas (ORAs) in consultation with the F&B associations and relevant government agencies. The revised requirements (reference FSR 6: 2014) are shown in attached. This FSR shall take effect from 31 Jan 2015.

2. Please convey the contents of this circular to members of your Institution/Association/ Board. The circular is also available in CORENET-e-Info: <http://www.corenet.gov.sg/einfo>

3. For any inquiry or clarification, please contact CPT Yam Yeow Kiat at Tel. No. 68481418 or email address YAM_Yeow_Kiat@scdf.gov.sg.

Yours faithfully,

(transmitted via e-mail)

MAJ Tan Chung Yee
Fire Safety and Shelter Department
for Commissioner
Singapore Civil Defence Force



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SINGAPORE CIVIL DEFENCE FORCE

FIRE SAFETY REQUIREMENTS FOR OUTDOOR REFRESHMENT AREAS

FSR 6 : 2014

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| <p>Effective Date: 31 Jan 2015</p> |
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Issued by :

**Fire Safety Plans Branch
Fire Safety & Shelter Department**

(Total 13 pages)

FIRE SAFETY REQUIREMENTS FOR OUTDOOR REFRESHMENT AREAS

1 SCOPE

- 1.1 This set of fire safety requirements (FSR 6: 2014) supersedes FSR 6: 2011 with effect from its effective date.
- 1.2 The requirements stipulated herein shall be applicable to all food and beverage (F&B) outlets where ORAs are permitted by the relevant authorities.
- 1.3 F&B outlets shall include eating houses, restaurants, coffee shops, hawker centres, fast food outlets, cafeterias, canteens, pubs, bars and the like.

2 GENERAL

- 2.1 This FSR shall be read in conjunction with the prevailing Code of Practice for Fire Precautions in Buildings, namely, the Fire Code.
- 2.2 This FSR shall take precedence over similar requirements (if any) stipulated in the prevailing Fire Code.
- 2.3 The total occupant load within each F&B outlet shall not exceed 200 persons. Where this limit is exceeded, alternate rear exit opening directly into a back lane or safe external space shall be provided.
- 2.4 Where ORA encroaches on neighbouring property(s) or state land, it is the responsibility of the F&B outlet's owner/operator to seek no objection from the property owner(s) for the setting up of the ORA on his property.
- 2.5 Refer to Annex A for detailed illustrations of fire safety requirements for ORAs.

3 FIRE SAFETY REQUIREMENTS

3.1 ORAs along Covered Walkway

- 3.1.1 A 5-foot way of width not less than 1.2m shall be provided along the covered walkway. Tables and chairs shall be abutting the F&B shop front or located at the outer edge of the building within the covered walkway. The entrance of the F&B outlet shall not be blocked.
- 3.1.2 For F&B outlet located next to an exit staircase, a clear escape path from the staircase discharge point to external space shall be maintained. The width of the escape path shall not be less than the width of the exit staircase. No table(s), chair(s) or any form of obstruction shall encroach onto this escape path at all times.

3.2 ORAs open to the Sky

- 3.2.1 There is no limit to the number of table(s) or chair(s) placed in areas open to the sky, subject to compliance to other regulatory agencies.
- 3.2.2 When placement of table(s) or chair(s) is extended to any covered walkway, the requirements stipulated under clause 3.1 shall be complied with.
- 3.2.3 There shall be no encroachment of table(s), chair(s) or any form of obstruction on the escape path from the exit staircase discharge point to external space. The portion of covered ORA beyond the building lines and abutting the escape path shall be demarcated from the escape path with a red colour line of width not less than 50mm. Red colour wordings, "NO OBSTRUCTION OF EXIT", of height not less than 100mm shall be marked along the line at regular interval of not more than 1.5m.

3.3 ORAs with Umbrellas

- 3.3.1 When umbrellas are used to provide shelter for diners, its size shall not be larger than 2m in diameter or 2m x 2m square. The umbrellas shall be placed at a distance of not less than 1.5m from the building line (eaves of building).
- 3.3.2 There shall be no limit on the number of umbrellas placed in areas open to the sky. A separation distance of not less than 1.5m shall be provided between rows of umbrellas. There shall be no roofing between rows of umbrellas.
- 3.3.3 Where placement of table(s), chair(s) or any form of obstruction is extended to any covered walkway, the requirements stipulated under clause 3.1 shall be complied with.
- 3.3.4 There shall be no encroachment of table(s), chair(s) or umbrella(s) or any form of obstruction on the escape path from the exit staircase discharge point to external space. Where umbrellas are placed close to the exit staircase discharge path, clause 3.2.3 shall be complied with.

- 3.3.5 Umbrella having dimensions larger than 2m in diameter or 2m x 2m square shall be treated as canopy/awning. Hence, requirements stipulated under clause 3.4 shall be complied with.

3.4 ORAs with Canopy/Awning

3.4.1 General

There shall be no encroachment of table(s) or chair(s) or any form of obstruction onto the escape path from the exit staircase discharge point to the external space. This path beyond the building façade shall be clearly demarcated as per clause 3.2.3.

3.4.2 Canopy/awning with projection not exceeding 1m

- a) No separation between the canopy/awning and the nearer edge of the exit staircase discharge path is required.
- b) The high/low separation requirements stipulated under clause 3.5.7 of the Fire Code need not be complied with.
- c) The requirements on set back of unprotected openings from building/notional boundary stipulated under clause 3.5.3 of the Fire Code need not be complied with.
- d) Placement of table(s) or chair(s) beneath the canopy/awning is permitted.
- e) The canopy/awning can be continuous and cover the exit staircase discharge path. Separation between the canopy/awning of the F&B outlet and those of the neighbouring units is not required.
- f) There shall be no control on the material of the canopy/awning.

3.4.3 Canopy/awning with projection greater than 1m but not exceeding 2m

- a) A minimum separation distance of 0.5m between the canopy/awning and the nearer edge of the exit staircase discharge path shall be maintained. This separation requirement is exempted if the awning/canopy is designed to retract automatically when fire/smoke is detected within the F&B unit or its ORA.
- b) The high/low separation requirements stipulated under clause 3.5.7 of the Fire Code shall be complied with.
- c) The requirements on set back of unprotected openings from building/notional boundary stipulated under clause 3.5.3 of the Fire Code shall be complied with.
- d) A minimum 0.5m separation shall be maintained between the canopy/awning of the F&B outlet and the projection line of the separating wall. This separation requirement is exempted if the awning/canopy is designed to retract automatically when fire/smoke is detected within the F&B unit or its ORA.

- e) For auto-retractable canopy/awning as mentioned in (a) above, the canopy/awning can be continuous and cover the exit staircase discharge path. Separation between the canopy/awning of the F&B outlet and those of the neighbouring units is not required.
- f) The surface flame spread rating of the canopy/awning shall be minimum ¹Class 2.

3.4.4 Canopy/awning with projection greater than 2m but not exceeding 3m

- a) A minimum separation distance of 0.5m between the canopy/awning and the nearer edge of the exit staircase discharge path shall be maintained.
- b) The high/low separation requirements stipulated under clause 3.5.7 of the Fire Code shall be complied with.
- c) The requirements on set back of unprotected openings from building/notional boundary stipulated under clause 3.5.3 of the Fire Code shall be complied with.
- d) A minimum 0.5m separation shall be maintained between the canopy/awning of the F&B outlet and the projection line of the separating wall.
- e) The surface flame spread rating of the canopy/awning shall be minimum ¹Class 1.

3.4.5 Canopy/awning with projection exceeding 3m

All relevant requirements stipulated in the prevailing Fire Code shall be complied with.

3.5 **Other Fire Safety Requirements**

3.5.1 Open-flame cooking

Open-flame cooking shall not be allowed in ORA, except those open to the sky.

3.5.2 Automatic fire sprinkler protection

For buildings which are installed with automatic fire sprinkler system, the sprinkler protection shall be extended to protect the covered ORAs.

¹ The classification cited in this fire safety requirement is based on BS 476 "Fire tests on building materials and structures" Part 7 "Method of test to determine the classification of the surface spread of flame of products", Table 2 "Classification of spread of flame".

3.5.3 Fire hose reel coverage

Every part of covered ORA shall be within the coverage of fire hose reel(s).

4 APPROVAL OF FIRE SAFETY PLANS

4.1 Application for approval of fire safety plans for ORA shall be required, except for ORAs which comply FULLY to the following conditions:

- a) An escape route of width not less than 1.2m along the covered walkway is provided.
- b) Entrance of the F&B outlet is not blocked by tables(s), chair(s) or any form of obstruction.
- c) For F&B outlet located next to an exit staircase, no table(s), chair(s) or any form of obstruction is to encroach onto the escape path from exit staircase discharge point to the external space.
- d) For F&B outlet using umbrellas for its ORA, the size of umbrella is not more than 2m in diameter or 2m x 2m square and the set back of umbrellas from the building line (eaves of building) is not less than 1.5m.
- e) For F&B outlet having canopy/awning at the ORA, the projection of the canopy/awning is not exceeding 1m.

Fire Safety Requirements For ORAs- General Illustrations

1. ORA along covered walkway

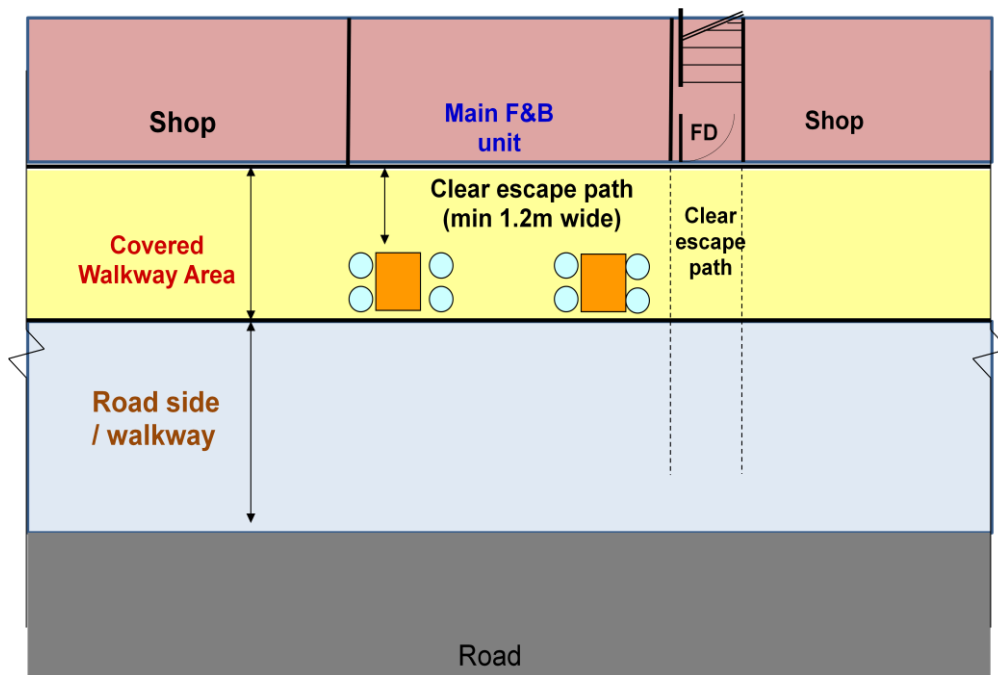


Figure 1a (Plan view)

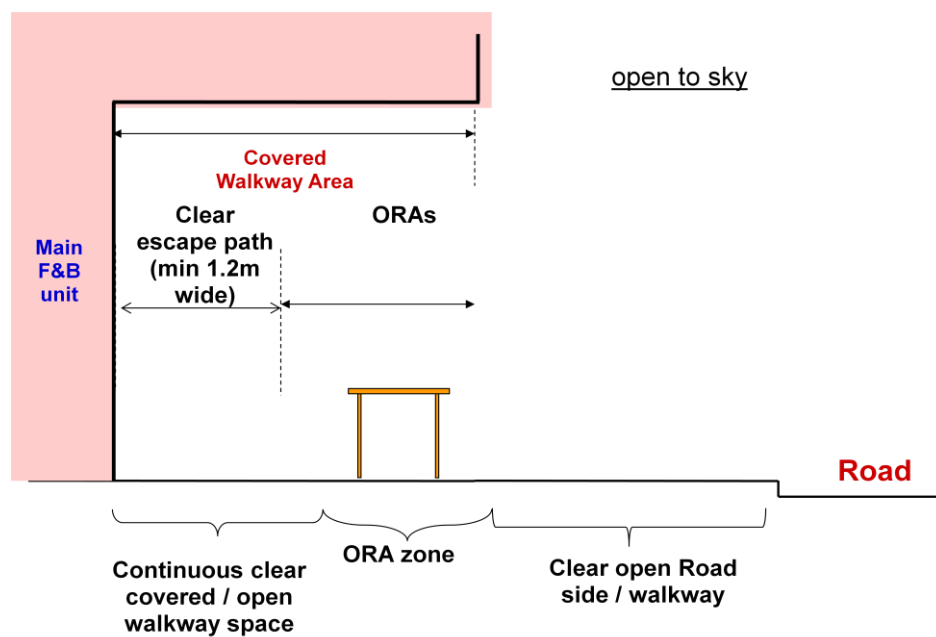


Fig 1b (Cross sectional view)

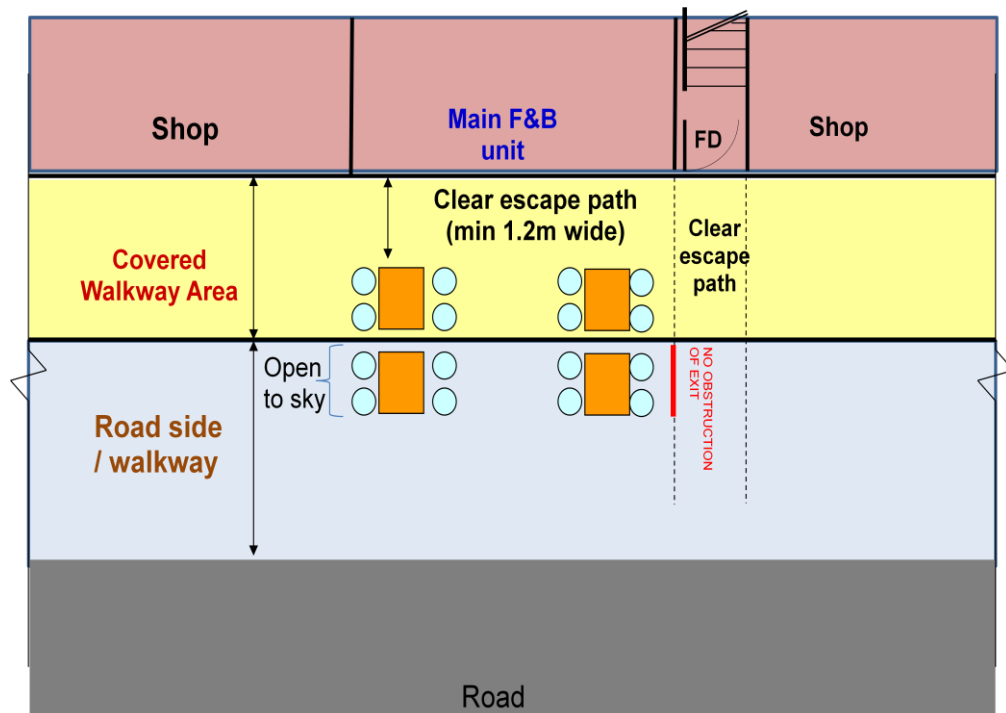


Fig 2a (Plan view)

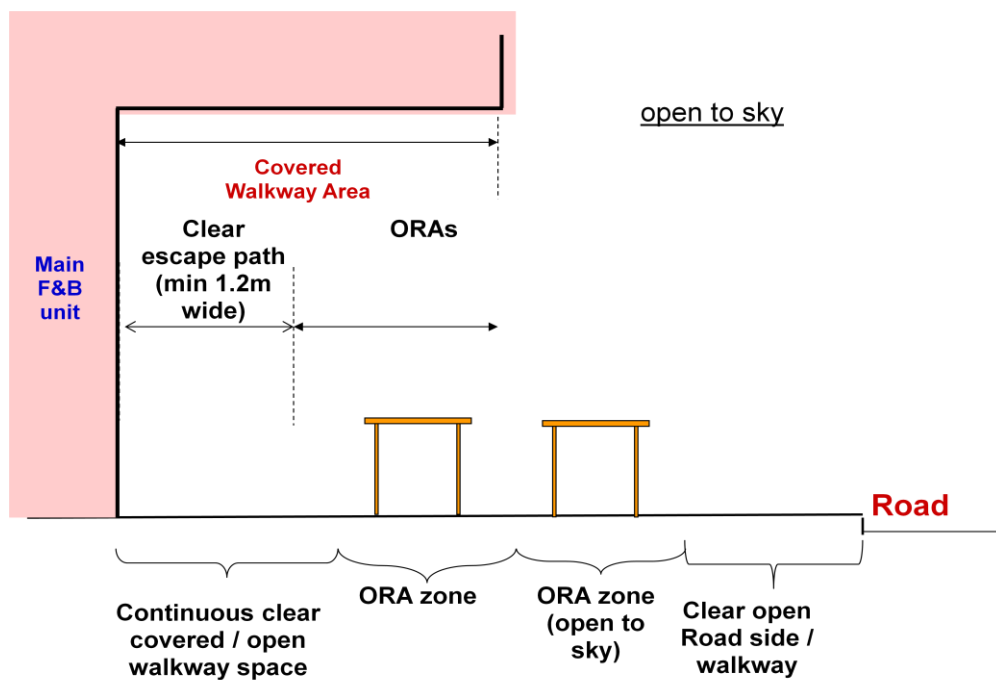


Fig 2b (Cross sectional view)

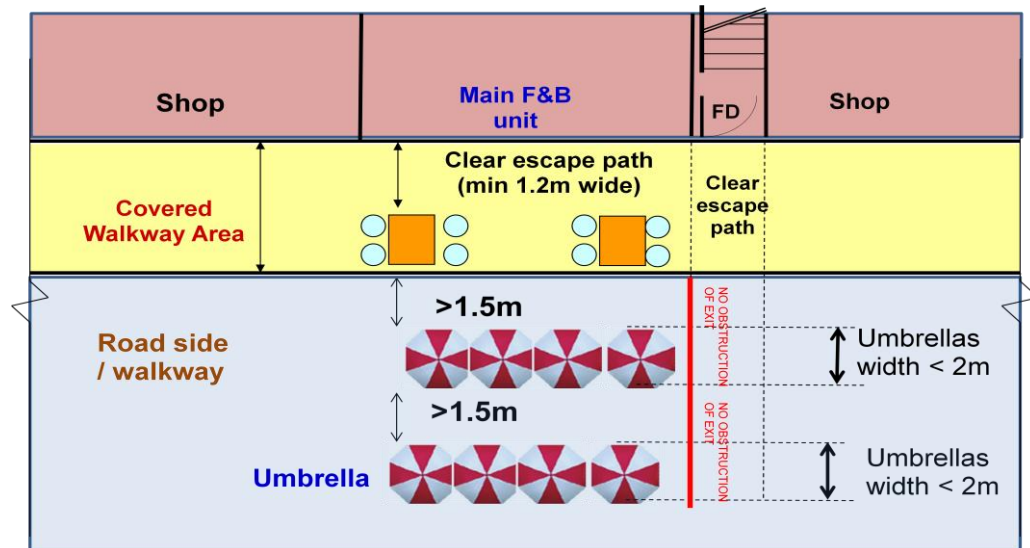


Fig 3a (Plan view)

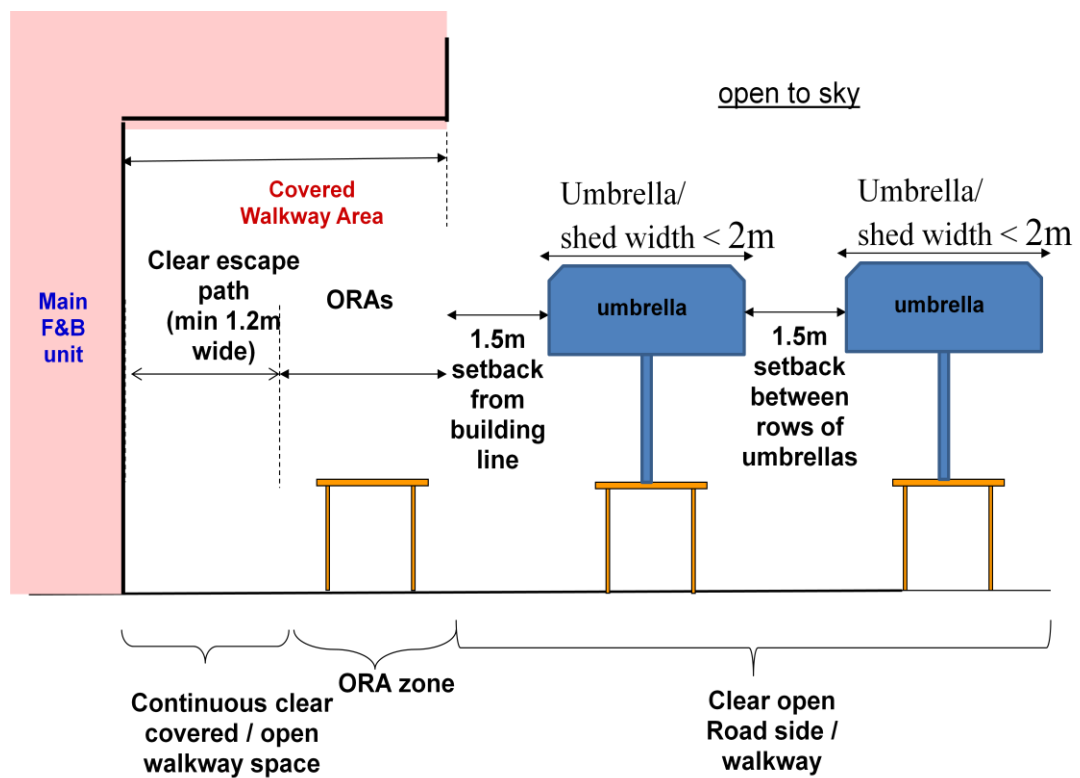


Fig 3b (Cross sectional view)

4. ORA with canopy/awning not exceeding 1m

FSR 6:2014

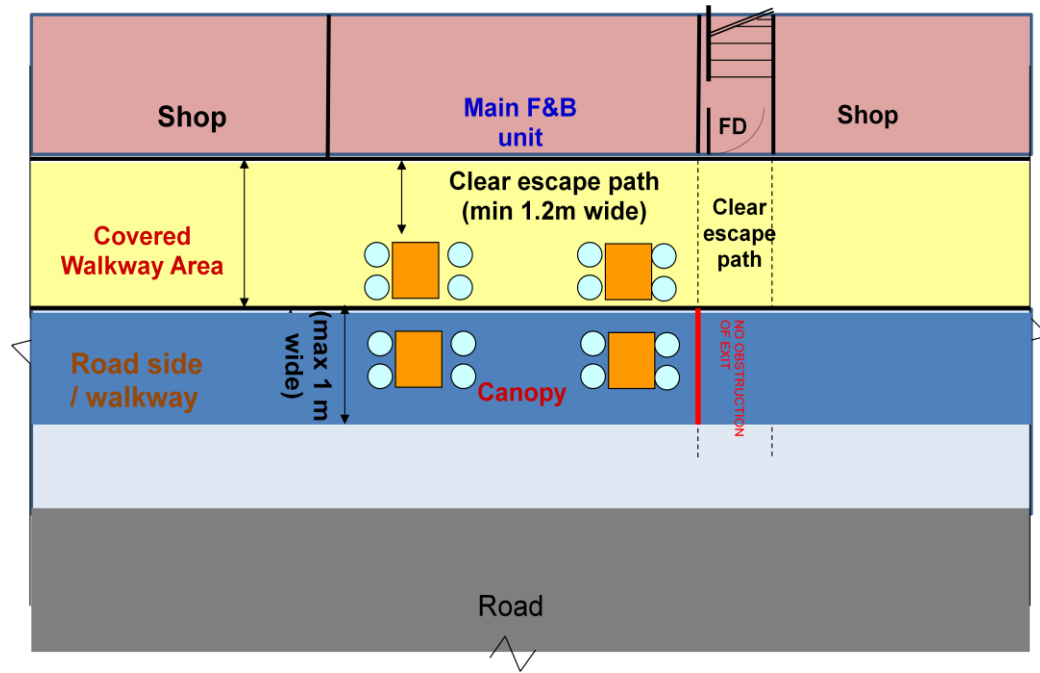


Fig 4a (Plan view)

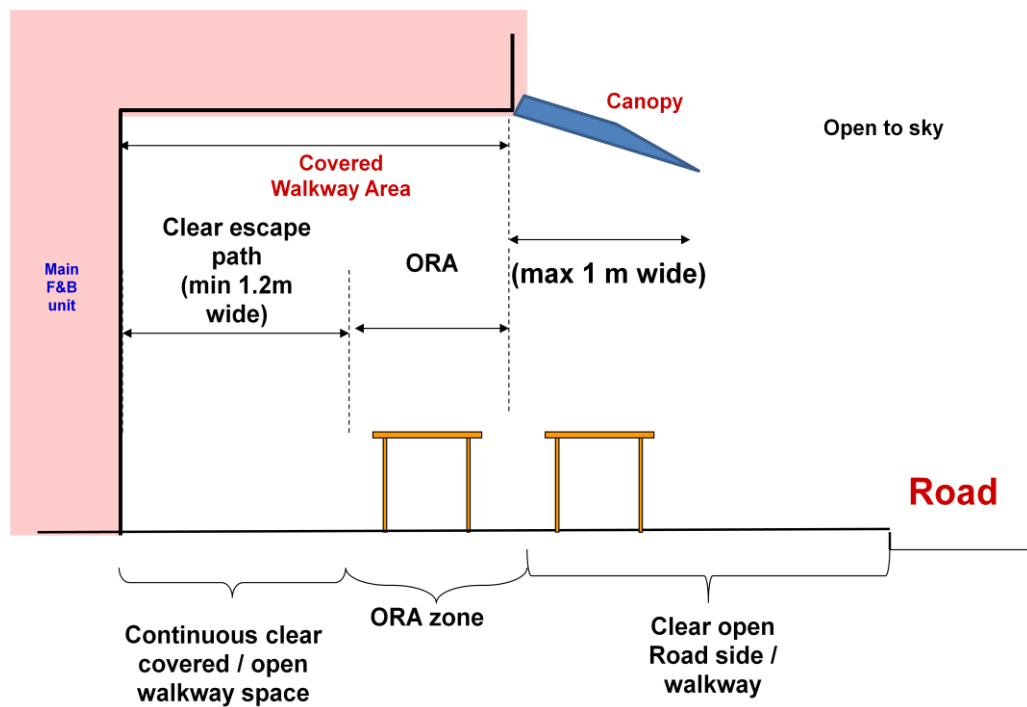


Fig 4b (Cross sectional view)

5. ORA with canopy/awning projection greater than 1m but not exceeding 2m
(Without auto retraction)

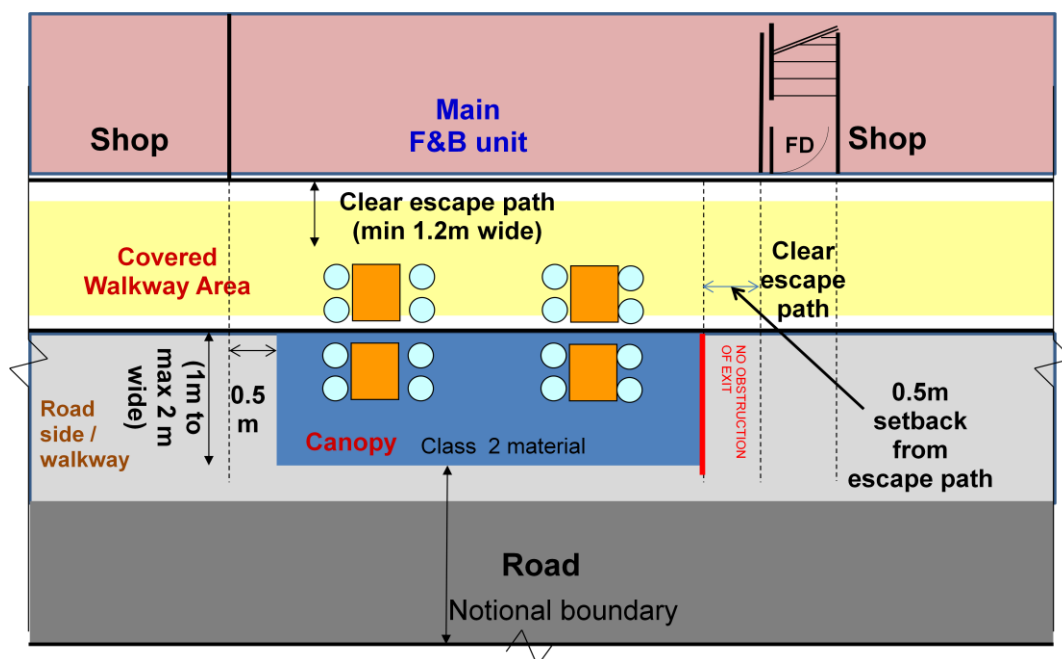


Fig 5a (Plan view)

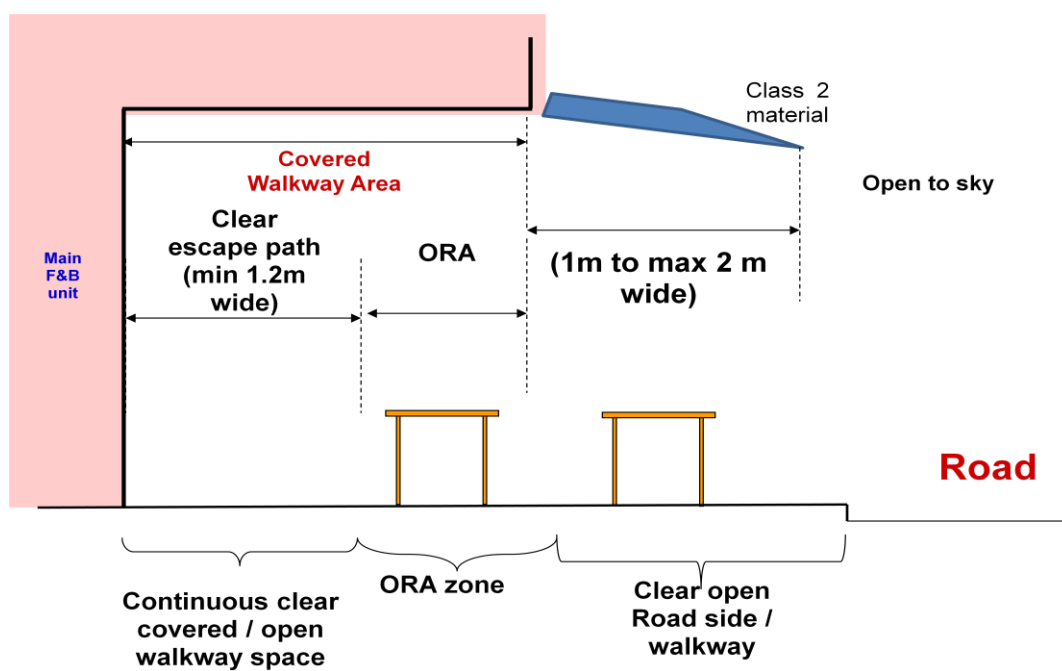


Fig 5b (Cross sectional view)

6. **ORA with canopy/awning projection greater than 1m but not exceeding 2m
(With auto retraction)**

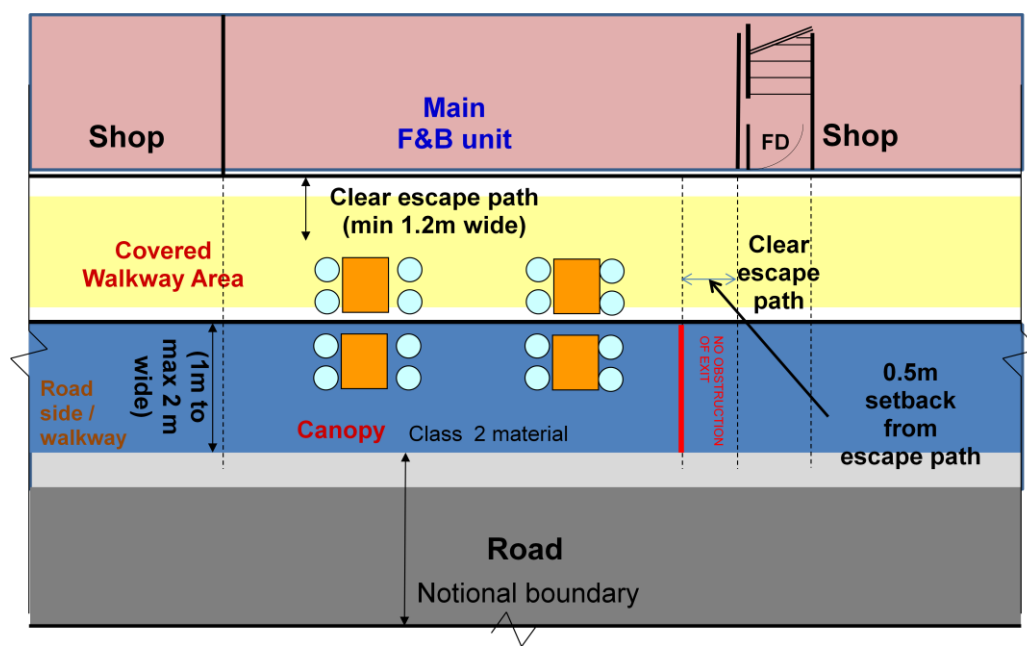


Fig 6a (Plan view)

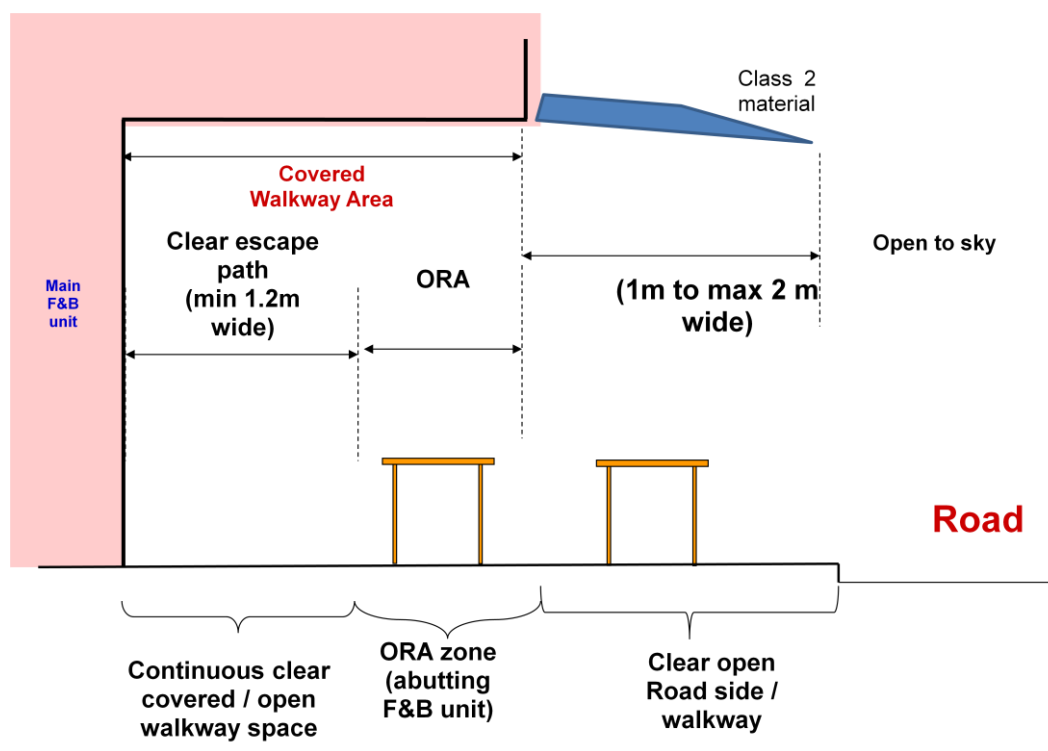


Fig 6b (Cross sectional view)

7. ORA with canopy/awning projection greater than 2m but not exceeding 3m

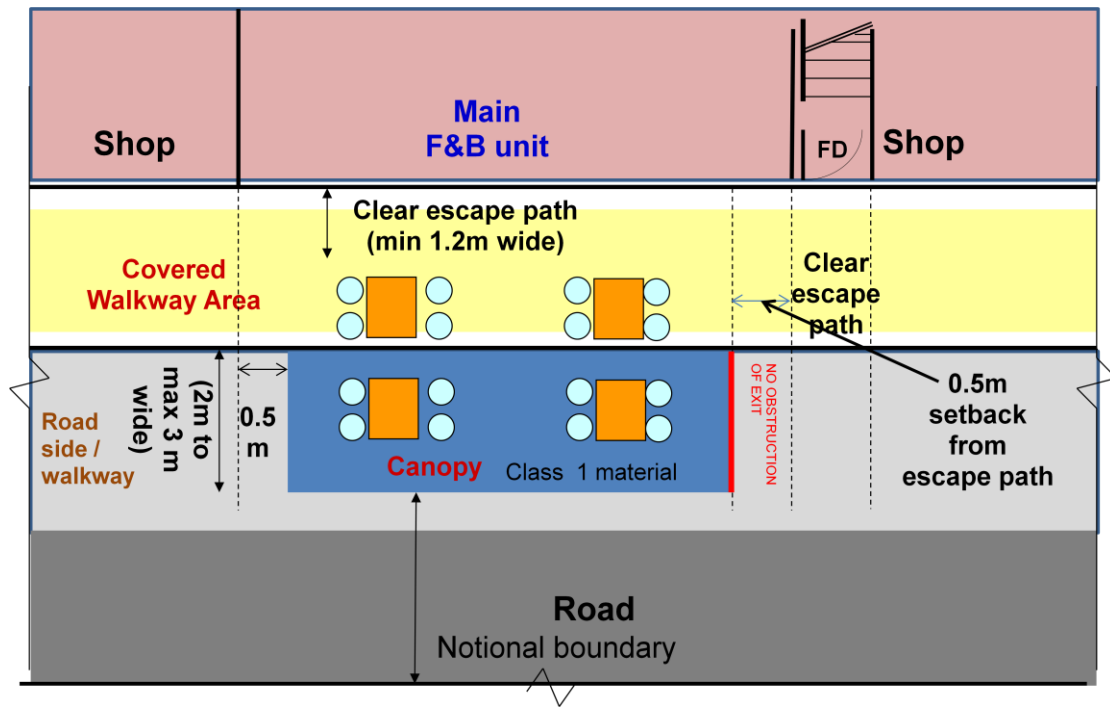


Fig 7a (Plan view)

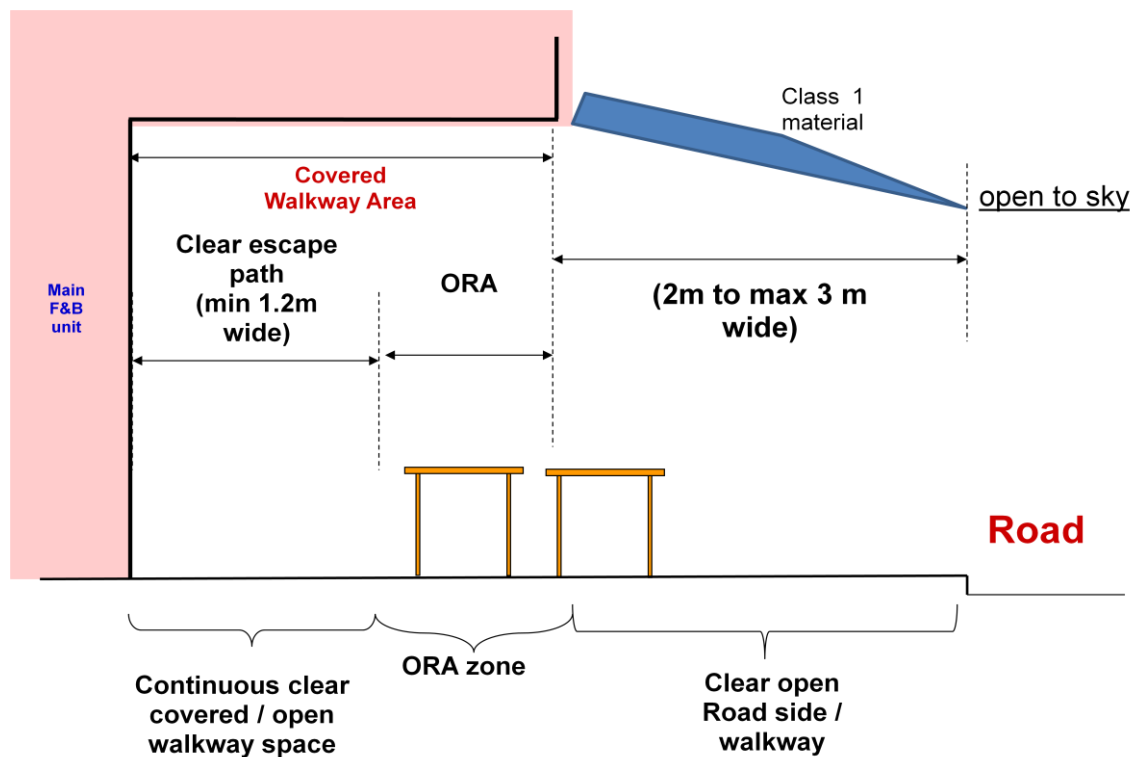


Fig 7b (Cross sectional view)