



Rialtas na hÉireann  
Government of Ireland

# 2023 Amendment to Part B / Technical Guidance Document B

Eoin O'Dowd  
Building Standards Advisor

Irish Building Control Institute Conference 30/03/2023



- Legislative changes
- Structural changes
- Technical Changes

# Legislative Changes



- Application / Transitional Arrangements
- Update to definitions
  - *Places of Assembly, Industrial, Storage - Normal risk, High Risk*
- Update to Article 13 (Material Change of Use)
  - *Industrial High Risk, Storage Normal Risk, Storage High risk becomes so used*
- Update to Second Schedule – Part B
  - *Regulation B1: Include means of alert in case of fire*
  - *Regulation B4: Inhibit fire spread on the face of the building*
  - *Regulation B12: Introduce requirement to provide information*

# Structural Changes



## Current TGD B

- Section 0 – Use
  - Section 1 – Means of Escape
  - Section 2 – Internal Fire Spread (Linings)
  - Section 3 – Internal Fire Spread (Structure)
  - Section 4 – External Fire Spread
  - Section 5 – Access and Facilities for the Fire Service
  - Appendix A – G
- 
- 188 Pages, 37 Diagrams, 22 Tables

## New Draft TGD B

- Section 0 – Use
  - Section 1 – Means of Escape
  - Section 2 – Internal Fire Spread (Linings)
  - Section 3 – Internal Fire Spread (Structure)
  - Section 4 – External Fire Spread
  - Section 5 – Access and Facilities for the Fire Service
  - Section 6 – Smoke Control Systems
  - Section 7 - Existing Buildings
  - Appendix A – I
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- 324 Pages, 86 Diagrams, 36 Tables

# Technical Changes

## Section 0 (Use of the document)



- Updated provisions for ‘alternative approaches’
- Specific scope – 60m buildings except Residential (Institutional) buildings - 30m
- Consolidated definitions
- Prima facie provisions to meet Regulation B12
- Inclusion of ‘Day Centre’ as a Purpose Group

# Technical Changes

## Section 1 (Means of Escape in case of fire)



- Additional provisions for:
  - *Day centres*
  - *Schools*
  - *Mezzanines in shops, offices and industrial buildings*
  - *Halls of residence (Student accommodation)*
  - *Stage areas, Tiered seating (Para 1.4.7, 1.4.8)*
- Requirement for sprinklers in multi-storey Residential (Institutional) buildings

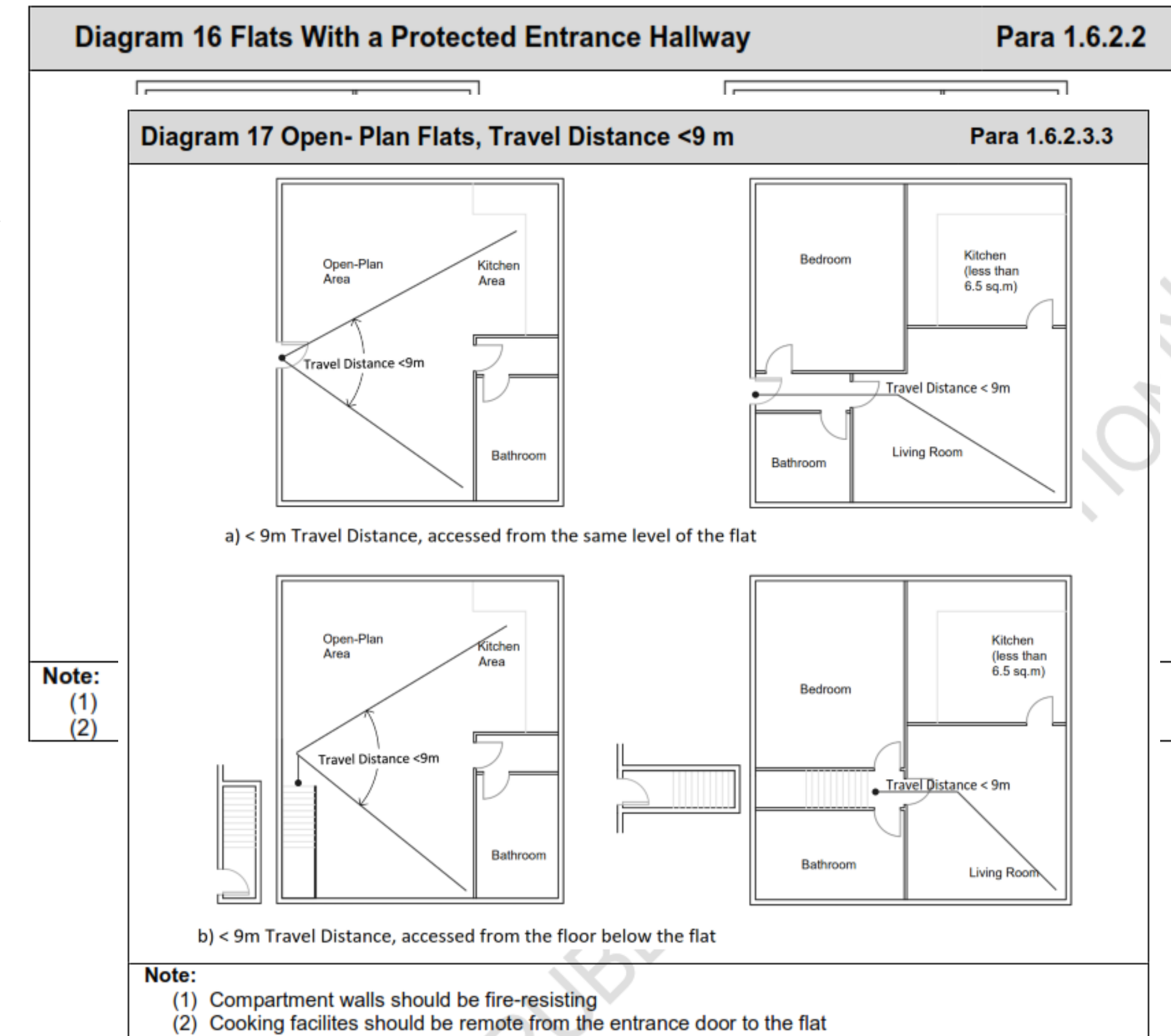


# Technical Changes

## Section 1 (Means of Escape in case of fire)



- Buildings containing flats
  - *New Section 1.6*
  - *Escape within units, Common escape routes*
  - *'PEH' and 'Open Plan' Flats*
  - *Escape provisions dependent on height*
  - *Simplified provisions for maisonettes*
  - *Common escape routes*
    - Simplified provisions for buildings < 11m
    - Balcony approach
    - Corridor / lobby approach – single stair
    - Corridor / lobby approach – multi-stair
  - *Two stairs or sprinklers @ 30m*



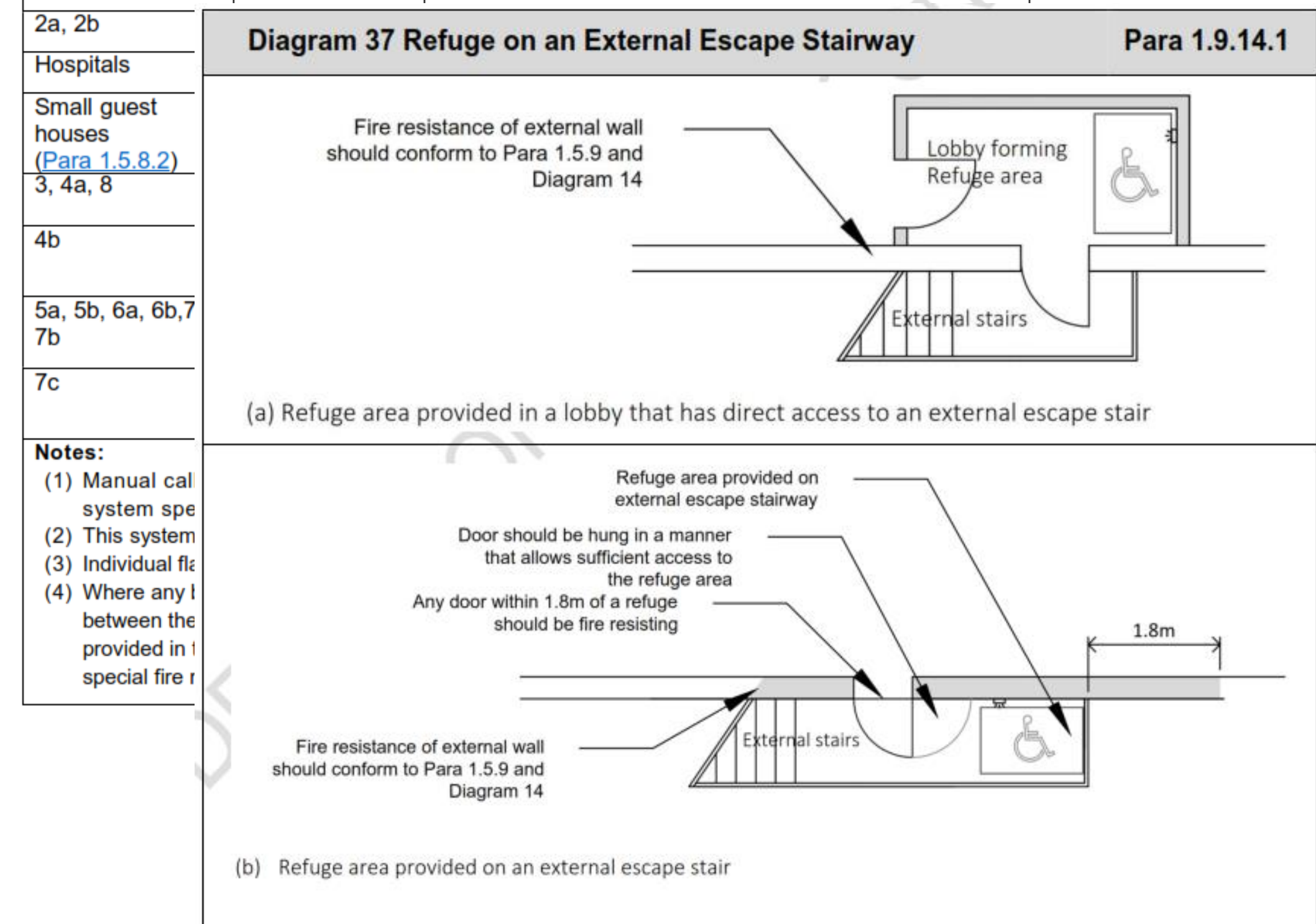
# Technical Changes

## Section 1 (Means of Escape in case of fire)



- New Section 1.7 – Shopping Centres
- New Section 1.8 – Small Premises
- Section 1.9 – General provisions
  - *Enhanced provisions for:*
  - *Fire Alarms, Refuges*

Table 13 Provision of Fire Detection and Alarm System		Para 1.9.13
Purpose Group <sup>(4)</sup>	System Classification	System coverage area <sup>(1)</sup>
1c,	L3X	Defined escape routes, in common protected areas (See 1.9.13.3.1)
	Grade D LD2	In individual flats (See 1.9.13.3.2) <sup>(2)(3)</sup>



**Notes:**  
 (1) Manual call system spe  
 (2) This system  
 (3) Individual fl  
 (4) Where any l  
 between the  
 provided in l  
 special fire r



# Technical Changes

## Section 2 (Internal Fire Spread - Linings)



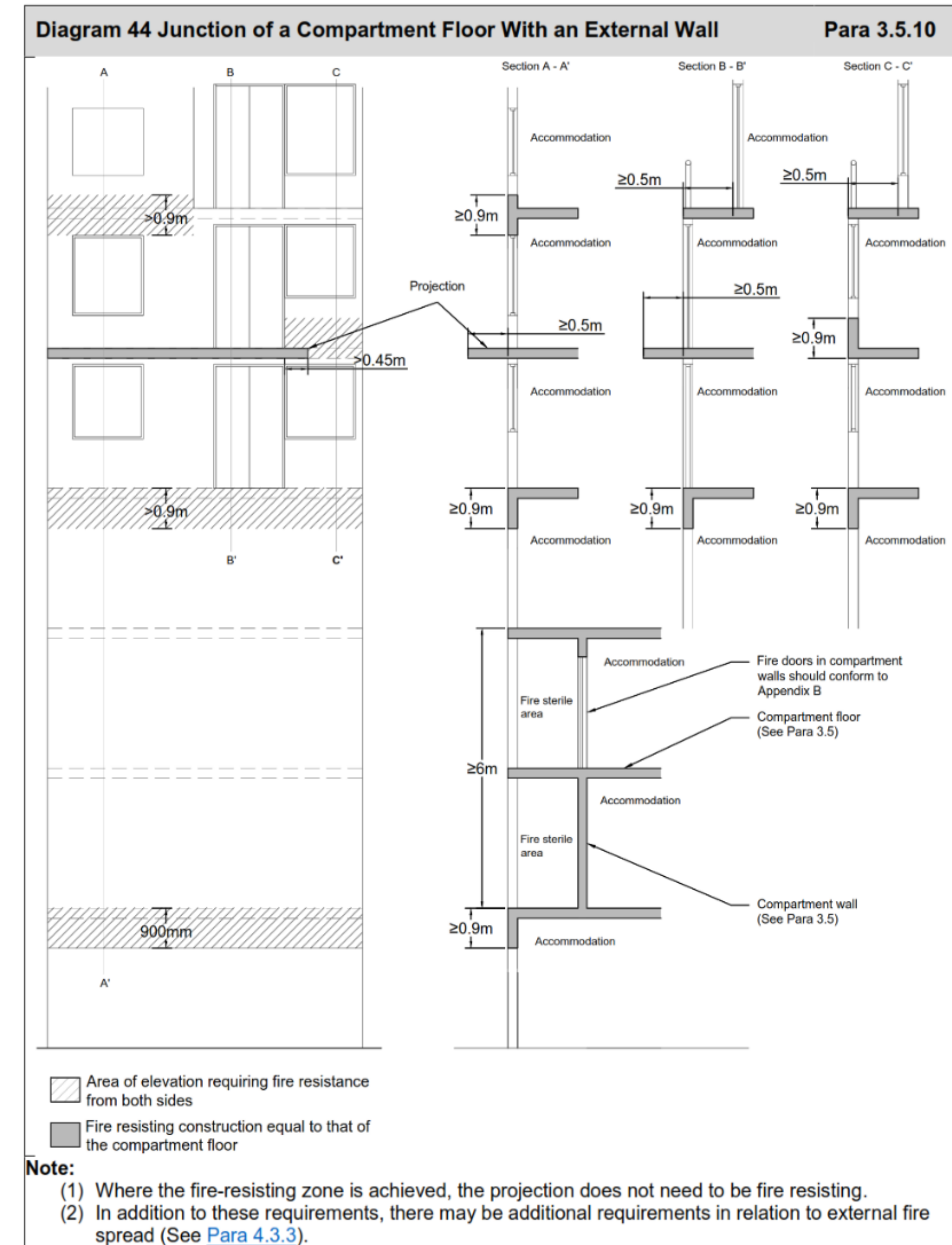
- Alignment to European test methodology for classification of RtF for linings for:
  - *new buildings, extensions, new materials in existing buildings*

# Technical Changes

## Section 3 (Internal Fire Spread - Structure)



- Inclusion of provisions for compartment walls / fire resisting walls specified
- Reduction in unsprinklered 'shop' compartment size from 4000m<sup>2</sup> to 2000m<sup>2</sup>
- Increase in sprinklered 'high risk storage' compartment size from 2000m<sup>2</sup> to 14,000m<sup>2</sup>
- Requirement for 0.9m spandrel / 0.5m projection to external walls in 'sleeping risk buildings / buildings over 30m



# Technical Changes

## Section 3 (Internal Fire Spread - Structure)



- Requirement for flanking protection where compartment walls meet external walls
- Removal of Diagram 17, Diagram 22 for new buildings
- New provisions for the fire stopping protection of ventilation systems
- Incorporation of provisions relating to atria

Diagram 45 Junction of a Compartment Wall With an External Wall Para 3.5.11

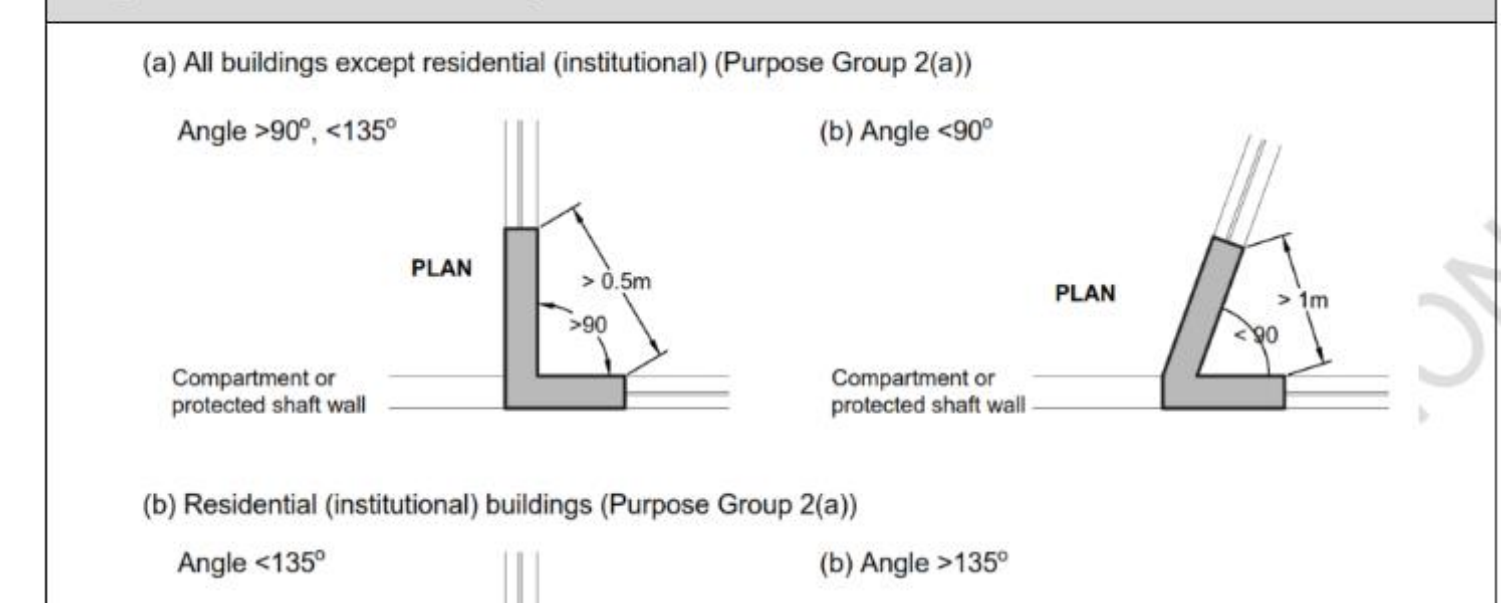
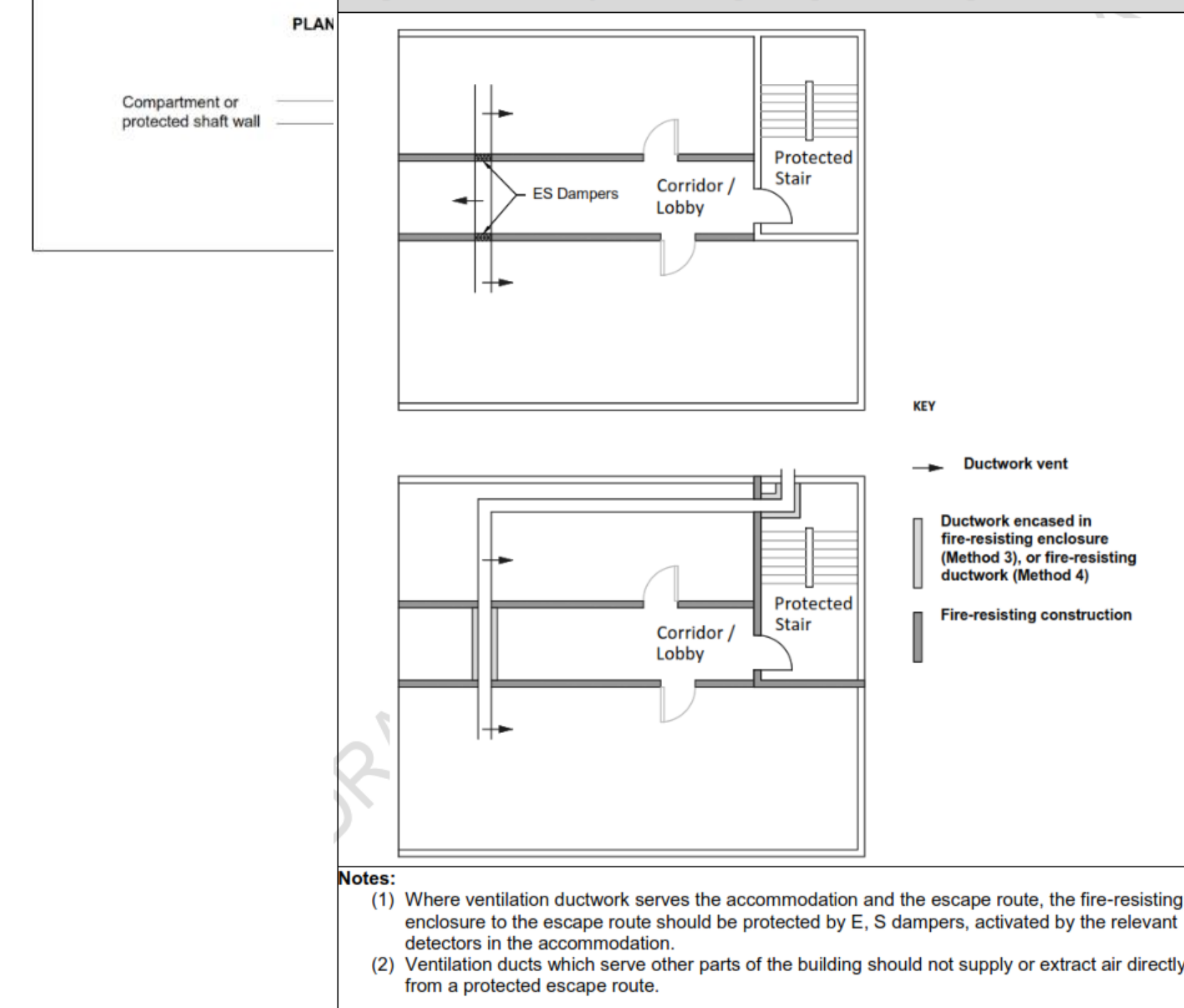


Diagram 52 Ventilation Systems Passing Through Fire-Resisting Elements





# Technical Changes

## Section 4 (External Fire Spread)



- Enhancement of provisions relating to external walls, external attachments
  - *Requirement for a whole wall RtF classification > 15m*
  - *Increasing performance at height*
  - *List of excluded elements (insulation in cavity walls, membranes, thermal break materials, pipes, etc.)*
  - *Or test to BS 8414*

Purpose Group	Height of topmost floor	Less than 1m to relevant boundary <sup>(1)</sup>	More than 1m to relevant boundary <sup>(1)</sup>
2a, 2b, 3, 4, 5, 6, 7, 8	Single storey	Class B-s3,d2 <sup>(3)</sup>	No requirement
2a	More than one storey, < 15m	Class B-s3,d2	Class B-
3, 4, 6, 7, 8	More than one storey, < 15m		
3, 4, 6, 7, 8	More than one storey, > 15m		
1c, 2b, 5	More than one storey, < 15m		
1c, 2a, 2b, 5	More than one storey, > 15m		

**Notes:**

(1) Balcony floors should achieve a 'fl' classification  
 (2) Timber cladding at least 9mm thick is required for all external wall materials with a reaction-to-fire classification  
 (3) Applicable only to the outermost wall

- 4.3.3.3 Materials Excluded From the Provisions**
- The following materials are excluded from the provisions of [Para 4.3.3.2](#):
- (a) The innermost lining of the external wall ([See Subsection 0.10](#)), provided that the lining conforms to Section 2.
  - (b) Cavity trays, or insulating material, when used between two leaves of masonry or concrete of at least 75mm.
  - (c) Timber frame walls with an external masonry leaf designed and constructed in accordance with I.S. 440.
  - (d) Any part of a roof that is pitched at an angle of 70° or more to the horizontal adjoining an area to which people have access (excluding access solely for the purposes of repair and maintenance).
  - (e) Door frames and doors.
  - (f) Paint applied to the outermost face of the wall.
  - (g) Pipes and cables used to distribute power or services.
  - (h) Insulation and water-proofing materials used at or below DPC level.
  - (i) Roof flashings and any roof membranes designed to prevent water ingress to the roof.
  - (j) Intumescent and fire-stopping materials where the inclusion of the materials is necessary to meet the requirements of Part B.
  - (k) Membranes.
  - (l) Seals, gaskets, fixings, sealants and backer rods.
  - (m) Thermal break materials where the inclusion of the materials is necessary to meet the thermal bridging requirements of Part L.
  - (n) Window frames and glass (including laminated glass).
  - (o) Vents penetrating the external wall.



# Technical Changes

## Section 4 (External Fire Spread)



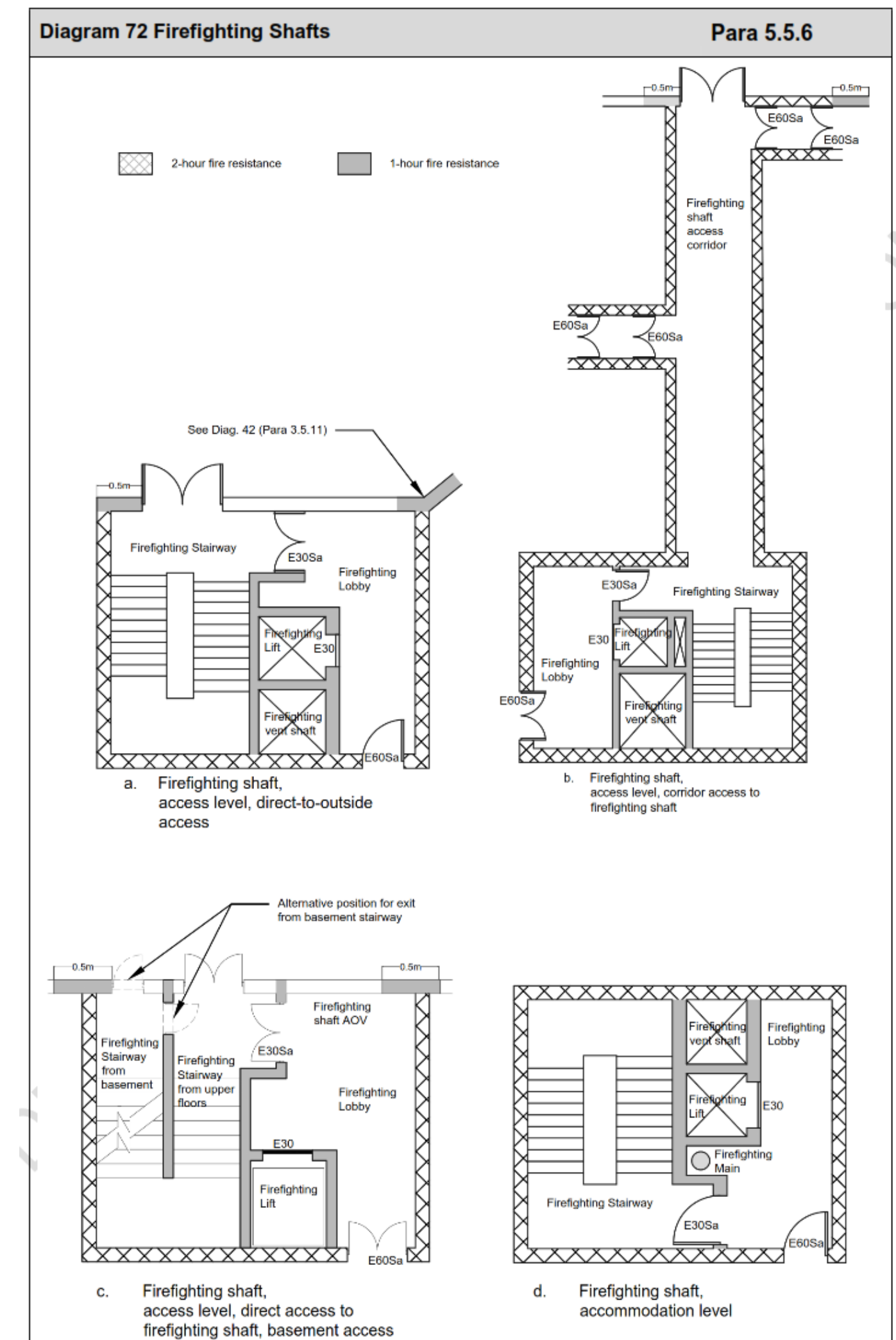
- Alignment to European test methodology for classification of RtF for roof coverings for:
  - *new buildings, extensions, new materials in existing buildings*

# Technical Changes

## Section 5 (Access and facilities for the fire service)



- Water supplies
- Enhanced internal access for firefighters in sleeping risk buildings > 11 m, < 20 m
- Incorporation of provisions relating to firefighting shafts
- Switches



# Technical Changes

## Section 6 (Smoke Control Systems)



- Consolidation of existing TGD B provisions relating to smoke control
- Incorporation of provisions relating to smoke control systems for:
  - *Atria*
  - *Firefighting shafts*
  - *Shopping centres*
  - *Assembly buildings*
  - *Buildings containing flats*

Certain requirements for smoke control systems apply irrespective of the use (Purpose Group) of the building, as follows:

- (a) For buildings with a protected stairway, see [Subsection 6.2](#).
- (b) For buildings with a firefighting shaft, see [Subsection 6.3](#).
- (c) For buildings containing atria, see [Subsection 6.4](#).
- (d) For certain basements, see [Subsection 6.5](#).

In addition to these requirements, certain uses also require smoke control systems, as follows:

- (a) For buildings containing flats, see [Subsection 6.6](#).
- (b) For industrial and storage buildings, with large undivided and windowless spaces, see [Subsection 6.7](#).
- (c) For car parks, see [Subsection 6.8](#).
- (d) For assembly and recreation buildings, see [Subsection 6.9](#).
- (e) For shopping centres, see [Subsection 6.10](#).



# Technical Changes

## Section 7 (Existing Buildings)



- Consolidation of existing TGD B provisions relating to existing buildings
- Retention of classification to BS 476 for existing building elements
- Expansion of use of compensating measures
- Buildings containing flats
  - *Specific requirements for change of use to flats (< 4 storeys, single stairs) – 11m height restriction removed*
  - *Reduced stair width 0.8m < 50 persons, 0.9m < 100 persons*



# Technical Changes

## Section 7 (Existing Buildings)



- S 7.3 Compartmentation
  - *Timber floors in existing buildings*
  - *Compartment floors in existing buildings > 11m*
  - *Compartment walls in existing buildings > 11m*
  - *Retention of 'Diagram 17', 'Diagram 22' – for existing buildings / situations*

# Technical Changes

## Appendices



- Alignment of provisions with current TGD B 2017
- New items to Table A1 to account for additional provisions in Sections 1 – 7
- New Diagrams to Appendix C – Methods of Measurement - atria
- New Appendix D – Sprinkler Systems
- Modification to Appendix E – High rack storage > 7m is considered ‘high risk’

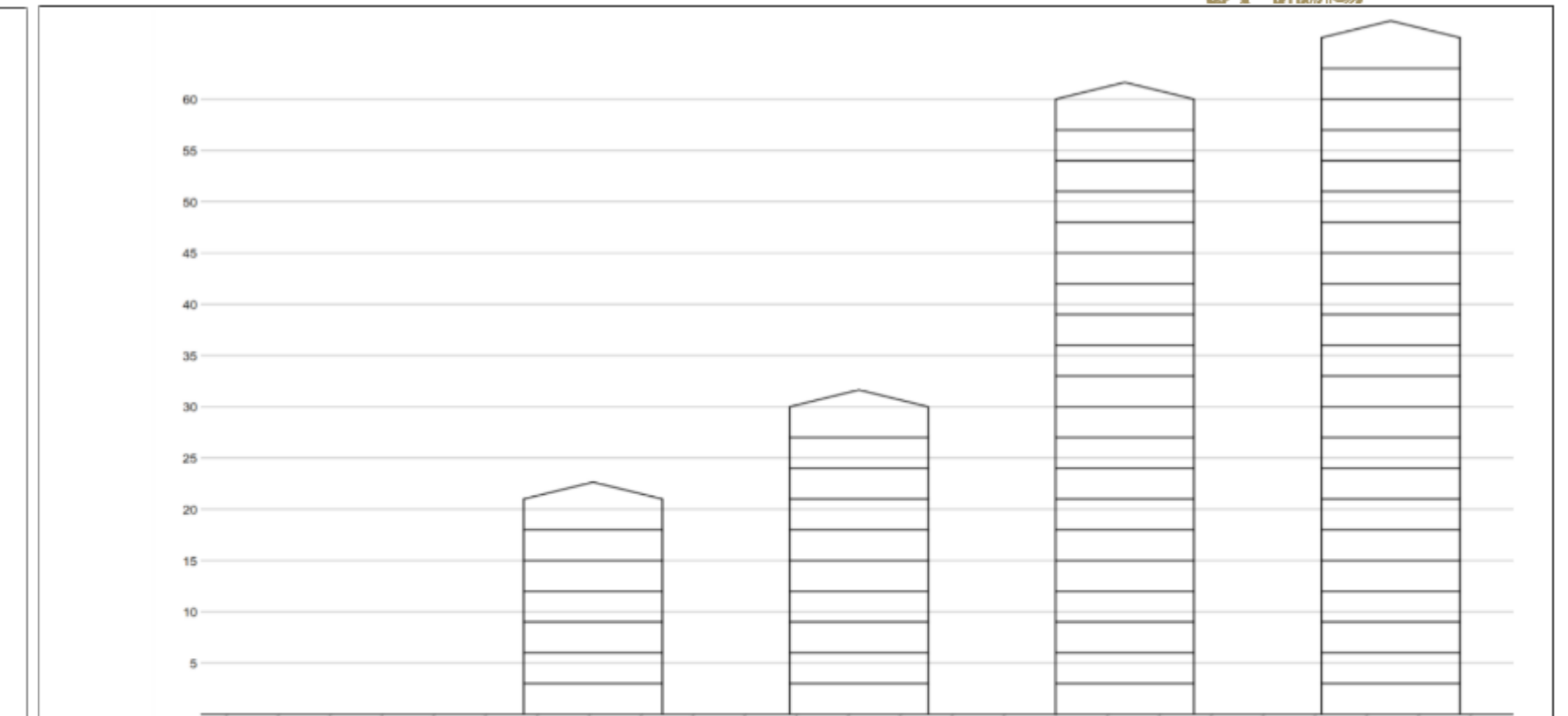
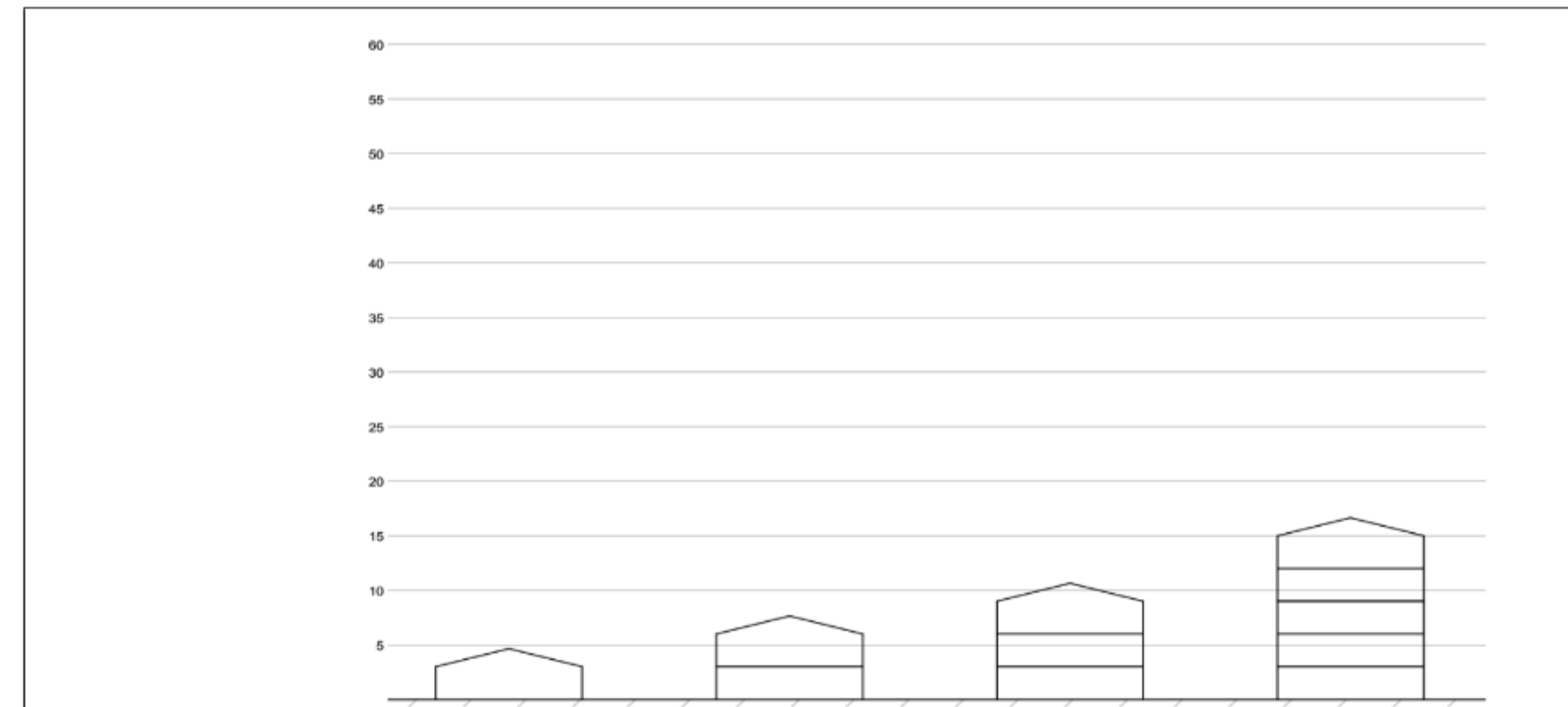


# Technical Changes

## Appendices



- New Appendix I – Summary of requirements at height



Building Height	Single Storey	Topmost floor < 5 m	Topmost floor > 5 m, < 11 m	Topmost floor > 11 m, < 15 m
Min. no of Stairways	N/A	<b>PG 2(a):</b> 2 Stairways (i) <b>All other PG's:</b> 1 (i)	<b>PG 2(a), 5(a), 5(b):</b> 2 Stairways (i) <b>All other PG's:</b> 1 (i)	<b>PG 2(a), 2(b), 3, 4, 5, 6, 7, 8:</b> 2 Stairways (i) <b>PG 1(c):</b> 1(i)
Compartment wall and floor RtF classification	<b>PG 2(a):</b> A2-s3,d2 (walls only)	<b>PG 2(a):</b> A2-s3,d2 (v) <b>All other PG's:</b> No Requirement	<b>PG 2(a):</b> A2-s3,d2 (v) <b>All other PG's:</b> No Requirement	<b>All PG's:</b> A2-s3,d2
External wall < 1 m to Boundary RtF classification	<b>PG 2a, 2b, 3, 4, 5, 6, 7, 8:</b> B-s3,d2	<b>PG 2a:</b> Class B-s3,d2 <b>PG 1c, 2b, 5:</b> B-s3,d0 <b>PG 3, 4, 6, 7, 8:</b> B-s3,d2	<b>PG 2a:</b> B-s3,d2 <b>PG 1c, 2b, 5:</b> B-s3,d0 <b>PG 3, 4, 6, 7, 8:</b> B-s3,d2	<b>PG 2a:</b> B-s3,d2 <b>PG 1c, 2b, 5:</b> B-s3,d0 <b>PG 3, 4, 6, 7, 8:</b> B-s3,d2
External wall > 1 m to Boundary RtF classification	<b>PG 2a, 2b, 3, 4, 5, 6, 7, 8:</b> No Requirement <b>PG 1c:</b> N/A	<b>PG 2a:</b> B-s3,d2 <b>PG 1c, 2b, 5:</b> C-s3,d0 <b>PG 3, 4, 6, 7, 8:</b> C-s3,d2	<b>PG 2a:</b> B-s3,d2 <b>PG 1c, 2b, 5:</b> C-s3,d0 <b>PG 3, 4, 6, 7, 8:</b> C-s3,d2	<b>PG 2a:</b> B-s3,d2 <b>PG 1c, 2b, 5:</b> C-s3,d0 <b>PG 3, 4, 6, 7, 8:</b> C-s3,d2
Firefighter access	<b>All PG's:</b> Perimeter access based on building floor area & volume	<b>All PG's:</b> Perimeter access based on building floor area & volume	<b>All PG's:</b> Perimeter access based on building floor area & volume	<b>PG 1(c), 2(a), 2(b),</b> Protected stair and firefighting main <b>All other PG's:</b> Perimeter access based on building floor area & volume
Sprinklers	<b>PG 4(b):</b> Throughout (ii) <b>All other PG's:</b> N/A(iii)	<b>PG 2(a), PG 4(b):</b> Throughout (ii) <b>All other PG's:</b> N/A(iii)	<b>PG 2(a), PG 4(b):</b> Throughout (ii) <b>All other PG's:</b> N/A(iii)	<b>PG 2(a), PG 4(b):</b> Throughout (ii) <b>All other PG's:</b> N/A(iii)
Other		External escape stairways permitted in limited circumstances	External escape stairways permitted in limited circumstances	External escape stairways not permitted (iv)

(i) Additional stairways may be required to satisfy escape requirements for travel distance, occupant capacity, etc.  
 (ii) Sprinklers are not required in sterile mall areas of a shopping centre  
 (iii) Sprinklers may be required due to other provisions of this document, e.g. as an alternative to spandrels  
 (iv) For existing buildings, see Section 7  
 (v) For certain walls and floors in a shopping centre, see [Subsection 1.7](#)

Building Height	Topmost floor > 15 m, < 20 m	Topmost floor > 20 m, < 30 m	Topmost floor > 30 m, < 60 m	Topmost floor > 60 m
Min. no of Stairways	<b>PG 2(a), 2(b), 3, 4, 5, 6, 7, 8:</b> 2 Stairways (i) <b>PG 1(c):</b> 1(i)	<b>PG 2(a), 2(b), 3, 4, 5, 6, 7, 8:</b> 2 Stairways (i) <b>PG 1(c):</b> 1(i)	<b>PG 2(a), 2(b), 3, 4, 5, 6, 7, 8:</b> 2 Stairways (i) <b>PG 1c:</b> 2 stairways or sprinklers throughout (i)	
Compartment wall and floor RtF classification	<b>All PG's:</b> A2-s3,d2	<b>All PG's:</b> A2-s3,d2	<b>All PG's:</b> A2-s3,d2	
External wall < 1 m to Boundary RtF classification	<b>PG 1c, 2a, 2b, 5:</b> A2-s1,d0 <b>PG 3, 4, 6, 7, 8:</b> B-s3,d2	<b>PG 1c, 2a, 2b, 5:</b> A2-s1,d0 <b>PG 3, 4, 6, 7, 8:</b> B-s3,d2	<b>PG 1c, 2a, 2b, 5:</b> A2-s1,d0 <b>PG 3, 4, 6, 7, 8:</b> B-s3,d2	
External wall > 1 m to Boundary RtF classification	<b>PG 1c, 2a, 2b, 5:</b> A2-s1,d0 <b>PG 3, 4, 6, 7, 8:</b> B-s3,d2	<b>PG 1c, 2a, 2b, 5:</b> A2-s1,d0 <b>PG 3, 4, 6, 7, 8:</b> B-s3,d2	<b>PG 1c, 2a, 2b, 5:</b> A2-s1,d0 <b>PG 3, 4, 6, 7, 8:</b> B-s3,d2	
Firefighter access	<b>PG 1(c), 2(a), 2(b),</b> Protected stair and firefighting main <b>All other PG's:</b> Perimeter access based on building floor area & volume	<b>All PG's:</b> Firefighting Shaft	<b>All PG's:</b> Firefighting Shaft	Outside the scope of TGD B
Sprinklers	<b>PG 2(a), PG 4(b):</b> Throughout (ii) <b>All other PG's:</b> N/A(iii)	<b>PG 2(a), PG 4(b):</b> Throughout (ii) <b>All other PG's:</b> N/A(iii)	<b>PG 2(a), 3, 4(a), 4(b), 5, 6, 7, 8:</b> Throughout(ii) <b>PG 1(c), 2(b)</b> N/A(iii)	
Other	External escape stairways not permitted (iv)	Discounting of stairways required Lobbies to stairways required External escape stairways not permitted (iv)	Discounting of stairways required Lobbies to stairways required External escape stairways not permitted (iv)	

(i) Additional stairways may be required to satisfy escape requirements for travel distance, occupant capacity, etc.  
 (ii) Sprinklers are not required in sterile mall areas of a shopping centre  
 (iii) Sprinklers may be required due to other provisions of this document, e.g. as an alternative to spandrels  
 (iv) For existing buildings, see Section 7

# Public Consultation



- Opened: 20<sup>th</sup> January 2023
- Closes: 21<sup>st</sup> April 2023

[partbconsultation@housing.gov.ie](mailto:partbconsultation@housing.gov.ie)



# Benefits



- Common technical language
- Modernisation
- Consolidation
- Flexibility
- Strengthening
- Alignment
- Re-use

# Questions?



