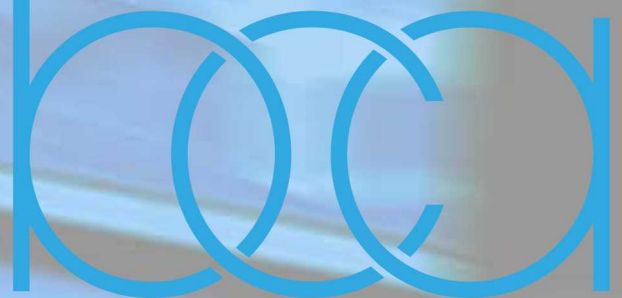


**Means of escape
from enclosed
private balconies to
flats**

23

**Issue 02.00
October 2019**

**Fire safety:
Flats**



Building Control Alliance

Purpose | BCA Technical Guidance Note 23

BCA technical guidance notes are for the benefit of it's members and the construction industry, to provide information, promote good practice and encourage consistency of interpretation for the benefit of our clients. They are advisory in nature, and in all cases the responsibility for determining compliance with the Building Regulations remains with the building control body concerned.

This guidance note is based upon information available at the time of issue and may be subject to change. The Approved Documents should be consulted for full details in any particular case.

Status | BCA Technical Guidance Note 23

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Notes on issue status:

A minor amendment is issued as an incremental point on the original and is in the form of 23.01.01, where the first number is the TGN number, the second is the issue and the third is the minor revision to the issue.

A major rework or change in guidance is given a new issue number, this would be in the form of 23.02.00 for a full re-issue.

Minor revisions are issued retaining the main issue number with a sequential revision number, this would be for updating standards or correction of errors. This would be in the form of 23.01.**01** for the first minor revision to the first issue

Always ensure you are using the most recent Guidance Note, these can be referenced at the BCA website:

Conventions used within this document:

- Websites and links are shown in dark **blue underlined bold text**.
- Standards and referenced documents are shown in **bold text**.
- Defined terms within the glossary are shown in **light blue bold text**.
- Section and diagram references are shown in **purple text**.

Subject Area | BCA Technical Guidance Note 23



Introduction | BCA Technical Guidance Note 23

This guidance has been produced following the increased practice of enclosing external balconies in order to extend the living accommodation for occupants of flats.

This advice note does not cover external open balconies for means of escape purposes, however consideration will still need to be undertaken for which reference can be made to **BS9991:2015** Annex D covering both open and enclosed balconies.

Although this guidance concentrates on requirements in respect of **part B** and means of escape provisions, consideration will need to be given to other applicable requirements including; **part C** (resistance to moisture), **part E** (resistance to the passage of sound) and **part L** (conservation of fuel and power) in addition to any other areas of **Schedule 1** that may be relevant.

An enclosed balcony is defined by Clause D.1 of **BS9991** as one that has less than 50% of its vertical section open, and the area of opening uniformly spread around its surface.

Key Issues | BCA Technical Guidance Note 23

The enclosure of a balcony following completion of a dwelling is considered to require an application under The Building Regulations by virtue of building regulation 3(1)(c) 'material alteration of a building'. This is further supported by sub section (2)(a) or (2)(b) which confirms that the carrying out of work resulting in a building not complying where previously it did, or causing a greater contravention to one that already existed is classed as 'building work' under the regulations.

Building Regulations **Approved Document B, Volume 1** 'Dwellings' (**ADBv1**) contains no significant advice concerning open or enclosed external balconies where they form a part of a single dwelling. Any reference to balconies relate to their use when forming a part of a common escape route once outside the confines of the dwelling (**ADBv1** paragraphs 3.10-3.12, 3.22 and 3.29). **ADBv1** contains no guidance on the enclosure or otherwise, travel distance or fire resistance requirements that could impact on means of escape. Clause 3.7 makes reference to escape routes from **inner rooms**; however the definition is narrow and does not specifically include a habitable room forming part of an enclosed balcony.

BS 9991:2015 – ‘Fire safety in the design management and use of residential buildings’ does however give guidance for open and enclosed balconies as its clause 7.1 confirms an enclosed private balcony is an **inner room** and its annex D provides further details on standards to be achieved for balconies.

This best practice note will focus on the requirements of **BS 9991**, and it must be remembered that a mix of requirements from this document and **ADBv1** should not be used to prove or disprove any particular solution.

Section 1 – General, clause 1 (Scope) confirms the guidance applies to new build, extensions, material alterations or material change of use; and therefore covers the formation of an enclosed balcony as part of the original design, and as an alteration.

Enclosed balconies as escape routes

Section 2 clause 7 of **BS 9991** states where alternative escape from a flat is recommended reliance should not be placed on external rescue:

‘The reliance of fire safety on manipulative apparatus, e.g. lowering lines or throw-out ladders, for means of escape, or on external rescue from the lower storeys of a building by the fire and rescue service using mobile ladders, is not advisable’.

It is therefore considered that there is no expectation that the balcony (although an enclosed space) will have an adverse affect on any escape route, as it should not have been considered as part of the escape route from the outset.

However, clause 7.1 of **BS 9991** does state enclosed private balconies serving a single dwelling should be treated as **inner rooms** and be in accordance with Annex D of the standard requiring alternative means of escape in some situations

Guidance | BCA Technical Guidance Note 23

Travel distances

Clause 9 of **BS 9991** ‘Internal Planning of Flats’ deals with travel distances within the flat, exact distances being dependant on flat layout and the existence, or otherwise of internal protected hallways. Travel distances must include the balcony, therefore the total permissible travel distance within the flat is measured from the furthest point of the balcony to the place of safety. Any alteration must ensure that the travel distance (including the balcony) is still within the allowance for the flat.

Cooking Facilities

Clause 9.1 of **BS 9991** Advises that cooking facilities in open plan flats should be sited to not prejudice escape, with annex D3.c providing greater detail on enclosed balconies. If there is a cooking risk in the access room it must be separated from the balcony escape route unless it is considered sufficiently remote to pose a threat. As an alternative, automatic fire suppression can be considered.

In any case where the travel distance exceeds 7.5m from any point on a balcony to the access door of the balcony an alternative escape route must be provided.

Flats with a floor no more than 4.5m above ground level

Clause 9.3 of **BS 9991** states any flat situated not more than 4.5m above ground level with an **inner room** used for habitable purposes (as an enclosed balcony) must have either a door or window opening that conforms to clause 5.1 of **BS 9991** for escape. Note that Clause 5.1c)3) includes guidance of the need to keep areas below balconies clear of obstructions to allow a ladder to be used.

Alternatively, the clause states that the flat could be fitted with a Grade D, Category LD1 fire alarm system in accordance with **BS 5839-6** and an automatic water fire suppression system (**AWFSS**) in accordance with section 11 of **BS 9991** throughout.

Flats with a floor more than 4.5m above ground level

Enclosure of the balcony will mean that it will become a room. The means of escape will need to be in accordance with clauses 9.4.2 to 9.4.4 of **BS9991**.

Where enclosure of the balcony means that the only escape is through another '**access room**', it will be classed as an '**inner room**'. In this situation the means of escape may only be acceptable if the whole flat, following the works to enclose the balcony, comply with clause 9.4.2a, 9.4.3a or 9.7 of **BS 9991** as appropriate. The flat will need to be fitted with a grade D LD1 fire alarm and detection system in accordance with **BS 5839-6** and an **AWFSS** where the travel distance exceeds the limits of the guidance.

Separation from other balconies

Clause 18.2.d) of **BS 9991** advises where an enclosed balcony abuts other balconies on adjoining dwellings it must have fire resistance and compartmentation to a standard required for the building.

Summary of guidance relating to enclosed balconies

- A balcony that is enclosed after completion of the flat is subject to control under the building regulations, regardless of its floor area.
- Enclosure of the balcony will result in it becoming an **inner room** with the link room to the balcony becoming an '**access room**'. This is only acceptable where the conditions summarised above in the guidance for flats with floors above or below 4.5m are achieved.
- Travel distances are restricted and must meet internal travel distances for the accommodation type, dependant on the floor height above ground level; with floors over 4.5m attracting greater restrictions on travel distances.
- Fire resisting construction must be used to separate the balcony from adjoining and contiguous balconies on adjoining dwellings
- The maximum travel distance across the balcony without an alternative separated exit route is 7.5m.
- Cooking facilities need to be remote from the exit route within the **access room** serving the balcony.

Glossary of Terms | BCA Technical Guidance Note 23

Access Room

Room that forms the only escape route from an **inner room**.

AWFSS

Automatic water fire suppression system (AWFSS) – system designed to control or extinguish fires without human intervention and may be a sprinkler or Watermist system depending upon the application.

BCB or Building Control Body

Building Control Body; the organisation responsible for providing building regulation compliance services, either within Local Authority or private sector Approved Inspector.

Inner Room

Room from which escape is possible only by passing through another room.

Part B

Refers to the part of Schedule 1 to the Building Regulations 2010 in relation to the requirements for fire safety

Part C

Refers to the part of Schedule 1 to the Building Regulations 2010 in relation to the requirements for resistance to moisture

Part E

Refers to the part of Schedule 1 to the Building Regulations 2010 in relation to the requirements for resistance to the passage of sound

Part L

Refers to the part of Schedule 1 to the Building Regulations 2010 in relation to the requirements for conservation of fuel and power

Schedule 1

Refers to the Schedule 1 to the Building Regulations 2010 listing the functional requirements of The Building Regulations in relation to buildings.

References | BCA Technical Guidance Note 23

Approved Document B, Volume 1 or ADBv1

HM Government (2019) Approved Document B Volume 1 – Dwellings: 2019 Edition. London: RIBA Books. Also Available from www.gov.uk.

BS 5839-6

BSI (2019), BS 5839-6:2019. Fire detection and fire alarm systems for buildings – Part 6: Code of practice for the design, installation, commissioning and maintenance of fire detection and fire alarm systems in domestic premises. London: British Standards Institution.

BS 9991

BSI (2015), BS 9991:2015. Fire safety in the design, management and use of residential buildings. Code of practice. London: British Standards Institution.



Building Control Alliance

The Building Control Alliance is a unique industry group made up of representatives from clients, stakeholders and all the organisations directly involved in building control in England and Wales.

It includes the organisations supporting the many thousands of building control professionals –

- Chartered Institute of Building
- Chartered Association of Building Engineers
- Royal Institution of Chartered Surveyors

and the professional associations promoting public and private sector building control –

- Local Authority Building Control
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