Royal Institute of British Architects

Department for Levelling Up, Housing and Communities: Consultation on sprinklers in care homes, removal of national classes, and staircases in residential buildings

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The Royal Institute of British Architects is a global professional membership body driving excellence in architecture. We serve our members and society in order to deliver better buildings and places, stronger communities and a sustainable environment. Being inclusive, ethical, environmentally aware and collaborative underpins all that we do.

Since the devastating fire at Grenfell Tower in 2017, the RIBA have been working with the Department for Levelling Up, Housing and Communities (DLUHC) and other key stakeholders to promote the importance of building safety and good design.

The RIBA welcomes the progress made to date, but to ensure our buildings are as safe as possible, the Government needs to move further and faster.

It is imperative that Approved Document B (ADB) is consistent, clear and unambiguous. A full review must be urgently carried out to ensure holistic and joined up regulations and guidance with clarity over requirements that align with the wider Building Safety Act 2022 reforms, revisions to British Standards (such as BS 9991), and other emerging legislation and regulatory reviews.

Critically, it is important to note that there is an extensive existing single staircase housing stock. When making changes to ADB, there must be a very clear message that these revisions do not make existing single staircase residential buildings inherently unsafe. Therefore, there must also be a provision that scheduled refurbishment or maintenance on existing buildings requires them to be brought up to an enhanced safety level.

Therefore, we recommend that:

- DLUHC undertake a full review of Approved Document B to ensure a holistic review of fire safety, that also addresses tall buildings.
- A height threshold of 18 metres should be the trigger point for a second staircase in all new residential buildings, with at least two staircases designed to perform as fire-fighting staircases.
- Existing single staircase residential buildings over 18 metres should be refurbished with evacuation lifts, sprinklers and centrally addressable fire alarm systems as ‘consequential improvements’ where a building is subject to 'material alterations'.
- Sprinklers should be standard in all settings where vulnerable people live.
- The national classes be removed, as per the consultation document.

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Sprinkler provision in new care homes

Question 4: Do you agree that sprinklers protection should be extended to new care homes of any height?
Agree

Question 5: Alternatively, would you agree with the proposal if it included a 10 bed threshold?
Disagree

Question 6: We welcome views on whether there are any exemptions you would include, what they are, and your evidence supporting their exclusion.
The RIBA support sprinklers as standard in settings with vulnerable people. Vulnerable people are not just represented by the elderly or children, but include those with physical vulnerability (which must include temporary as well as permanent disabilities, health conditions or impairment).

Question 7: Do you agree that Approved Document B should remove the current allowances when sprinklers are provided?
Disagree

Question 8: Which allowances do you think should be provided and what evidence do you have to support your view?
We recommend the broader use of sprinklers across new and converted buildings particularly where there is a higher risk to vulnerable occupants such as the elderly and children which is why we disagree to Question 5.

Retaining the allowance to have more than one bed in a room allows people to share a room if they so want to (for example, partners).

Question 9: Do you agree that Approved Document B should recommend sprinklers to the new BS 9251:2021 standard?
Agree

Question 11: Do you agree that there should be a transitional period of 6 months?
Agree

Question 12: If you disagree, how long should the transition period be?
As with transition periods on all issues in this consultation, clarity is required on the strategy for the transition and not just the period.

Removal of national classifications

Question 13: Do you agree that the national classifications for reaction to fire should be removed from Approved Document B?
Agree

Question 14: Do you agree that the national classifications for fire resistance should be removed from Approved Document B?
Agree

Question 16: Do you agree that there should be a transitional period of twelve months?
Agree

Question 17: If you disagree, how long should the transition period be and what is your evidence to support a longer or shorter transition period?
While we agree with 12 months, the transition period must allow for the manufacturing, supply and delivery considerations associated with these changes. Any new testing, re-testing, certification and guidance must be available to support the revisions and maintain comprehensive fire safety guidance for the built environment.

Question 18: Please outline any concerns you have about the withdrawal of the national classification with regards to fire resistance including potential impacts, such as on the fire door industry.
While we welcome the move to withdraw the national classes, it is vital that we have a system in place for product testing.

It is likely that the removal of national classifications from ADB will affect suppliers producing fire doors. Fire doors tested under British Standard (BS) 476 series will not be accepted and only fire doors supplied as doorsets, classified in accordance with BS European Standard (EN) 13501-2 will be acceptable.[i] This will likely impact supply and demand in the industry as well as bring into question the integrity of existing doors tested under the British Standard System.

There is also a concern that EN 13501 is not a direct replacement for BS 476, in scope or testing results, so the removal of BS 476 could result in structure or materials without a standard. We champion regulatory reforms on this subject, and we would welcome a route map, on how impacted areas will be brought in line.

The RIBA also urges the Government to publish the 'Independent Review of the Construction Products Testing Regime'[ii] report and its response as soon as possible. How this fits into the wider building safety regime is a vital piece of the puzzle.

Staircases in residential buildings

Question 19: Do you agree that Approved Document B should include a maximum threshold for the provision of a single staircase in residential buildings?
Agree

Question 20: Do you agree with our proposed threshold of 30 metres+?
Disagree

Question 21: If you disagree with the proposed threshold, at what height do you think the threshold should be set?
The RIBA recommend that new residential buildings of 18m and above be designed with at least two staircases, designed to perform as fire-fighting staircases.

Question 22: What evidence do you have to support this threshold?
Harmonisation with the wider regulatory environment
While arguments exist for a range of thresholds, both higher and lower, 18m would bring the greatest harmonisation with the wider regulatory environment, and therefore the greatest simplicity and certainty for industry at this time.

An 18m threshold would provide continuity of message and clarity across Government, aligning with definitions in the Building Safety Act as well as thresholds for certain provisions in the Fire Safety (England) Regulations and the amendments to fire safety provisions within Approved Document B in relation to fire alert systems in blocks of flats with storeys over 18m.

Amendments to ADB in 2020 brought down the required height threshold for sprinklers in residential flats from 30m to 11m. The decision reflects the increased risk with increased height. An 18m threshold for a second staircase in new residential buildings would similarly help to improve overall safety.

This would also help to synchronise standards across the United Kingdom by aligning to rules in Scotland, which has required two staircases in new residential buildings over 18m for four years.

Linking second staircases to fire-fighting shafts

At least two staircases should be required in all new residential buildings above 18m from ground level, each designed to perform as a fire-fighting staircase. The RIBA would suggest further staircase(s) may be necessary subject to the floor area of the building, with these area thresholds clearly identified within the ADB holistic review and subsequent amendments.

The purpose of the second staircase must be part of the initial design brief discussion so that the design, fire strategy and operational and maintenance strategies are aligned. The height at which "evacuation lifts" should be mandatory is interlinked with this discussion, as is not explicit in ADB.

Guidance under ADB (section 15) aligns with the 18m threshold we propose. It defines criteria for providing fire-fighting shafts; where a fire-fighting shaft is required, a minimum of two fire-fighting shafts should be provided to buildings with a storey that has both; a floor area of 900m^2 or more and a floor level 18m or more above the fire and rescue service vehicle access.

We now know that a fire-fighting staircase with fire fighters inside is a dangerous place with doors propped open by hoses, hoses on the staircase for 2-3 floors and smoke contamination going upwards to ventilate it. Designing for a second stair that may be designated for fire-fighting adds further fire protection and evacuation flexibility and providing a fire-fighting lift, would further support the vulnerable evacuating safely.

We would exclude external stairs as an approach to new build or retrospective strategy at 18m or above, where height and wind then introduces a further safety concern.

Better align non-domestic and domestic buildings

In England there is currently no maximum height for residential buildings with a single staircase. In contrast 'Buildings other than dwellings' are only permitted a single stair up to 11m, under Approved Document B, Volume 2.

Following the COVID-19 pandemic, increased hybrid working patterns mean that occupants are spending more time in their homes. Therefore, an 18m height threshold for requiring a second

staircase in residential buildings would better align with non-residential requirements.

Better reflect a post-Grenfell world

Research has found that post-Grenfell more people are choosing to evacuate their building when there is a fire. Between 1 April 2019 and 31 March 2022, there were 154 cases where 10 or more

people evacuated from a block of flats of a minimum of six storeys in London. This amounted to nearly 8,500 people choosing to evacuate buildings rather than 'stay put' before the arrival of the London Fire Brigade of during an incident.[iii]

This demonstrates the importance of occupants having access to a safe, smoke-free evacuation route in buildings over 18m, helping to remove the risk of a single point of failure.

Industry is already working towards 18 metres
RIBA fire safety experts suggest that practices are already recommending 18m to clients as best practice and industry reports some affordable buildings are also being specified at 18m with a second stair (likely driven by the Registered Provider's specification and contract). This reflects a shifting mindset about safety standards in relation to second staircase, and perhaps pre-empts changes to existing guidance.

Further action is required
As per our response to Q21, while we believe that 18m is the correct height for a second staircase for new residential buildings, it is not a panacea for fire safety. We urge the Government to undertake a full review of ADB.

Changes from the Building Safety Act, ambiguity in ADB and the lack of a specific reference to 'tall buildings' mean that a full review of ADB necessary to ensure that building design and regulatory requirements align and are holistically viewed.

Improving our existing housing stock
Critically, it is important to note that there is an extensive existing single staircase housing stock. When making changes to ADB, there must be a very clear message that these revisions do not make existing single staircase residential buildings inherently unsafe.

Therefore, there must also be a provision that scheduled refurbishment or maintenance on existing buildings requires them to be brought up to an enhanced safety level.

The RIBA recommends that evacuation lifts, sprinklers/automatic fire suppression systems and centrally addressable fire alarm systems should be required all existing residential buildings above 18m from ground level as 'consequential improvements' where a building is subject to 'material alterations'.

Question 23: Do you agree that additional measure should be provided to ensure sufficient separation between staircases??
Agree

Question 24: What additional measures should be provided to ensure the appropriate separation between staircases? Please provide any additional evidence to support your view
RIBA fire safety experts propose maximum travel distances between stairs should relate to 2x the single direction travel distance of the building i.e. 7.5m x2 = 15m. If vertical compartmentation can be achieved this could be extended to 2x15m i.e., 30m. The close proximity of the two stairs must also be prescribed so both stairs are not affected with smoke during evacuation and fire-fighting activities. The provision of protected fire-fighting lobbies for vulnerable person refuge, with smoke control are essential.

Question 25: Do you have a view on how long the transitional should be, and what evidence do you have to support your proposed transition?
Transitional arrangements must be clear, and the transition period should be as short as reasonably practicable. This is vital to ensure buildings are delivered to the highest standard of fire and safety design and to ensure clarity and consistency.

We also need to ensure that the route to compliance, not simply changing the functional requirement, aligns ADB and BS 9991.

With several Government consultations impacting the transition period, there must be no ambiguity on the transition period across consultation outcomes.

There is no avoiding that introducing a threshold for a second staircase will impact schemes currently in the design phase. Ambiguity to date has resulted in planning applications being withdrawn or delayed. Therefore, prolonging the implementation will not help with clarity and will only result in further speculation and more proposals and designs being progressed with abortive works, additional costs and delayed delivery (impacting not only the built environment professionals, housing targets but also end users).

Paragraph 10.6 and 10.7 – call for evidence

Question 26: Do you agree further consideration is needed to clarify the paragraph?
Agree

Question 27: If you agree, please outline what materials would you cover in the paragraphs and what is your evidence to support this?
We expect that the proposal to clarify the guidance is not only limited to AD B Volume 1 paragraphs 10.6 & 10.7, but also AD B Volume 2 paragraphs 12.6 and 12.7.

RIBA expert members recommend materials covered should include primary external walls components that are expected to have a significant contribution to fire spread. It would be preferable to list materials that should meet the provisions, rather than introduce an extensive exemption list (similar to Reg 7(3) for Relevant Buildings).

Materials proposed (though not exhaustive) that should meet the provisions include:

- Opaque (i.e., non-glazed) external cladding, including associated framing systems but excluding membranes, cavity trays, gaskets, sealants, seals, tapes, thermal breaks
- Thermal insulation, including spandrel and composite panels (300mm or higher above ground or roof level surfaces)
- Back wall/ inner leaf, including framed and solid types, but excluding any decoration or other finishes applied to any internal surface of the back wall
- Solar shading devices fixed on the external surface of external walls
- Add internal window sills and reveal linings to the list of fixtures to the inner leaf that are exempt from Reg 7.

Windows, doors, curtain walling, fire stopping/ cavity barriers along with all remaining non-significant external wall components (e.g. membranes, cavity trays, gaskets, sealants, seals, tapes, thermal breaks, electrical installations) should be exempted.

In respect of Paragraph 12,6 (10.6) we propose the following amendments:

- Revise Volume 2 Clause 12.6 heading to: "Insulation and filler materials"
- Remove "etc" from clause to clarify that the provisions of this paragraph only apply to insulation and filler materials

Assessment of impacts

Question 29: Are you aware of any particular equalities impacts for these proposals? How could any adverse impact be reduced and are there any ways we could better advance equality of opportunity or foster good relations between people who share a protected characteristic and those who do not? Please provide evidence to support your response.
The ultimate impact is the benefit to the improved safety of any vulnerable persons supporting 'inclusion' – design for everyone, not some.

[i] https://www.bwf.org.uk/open-consultations
[ii] https://www.gov.uk/government/groups/independent-review-of-the-construction-products-testing-regime
[iii] https://www.nationalfirechiefs.org.uk/write/MediaUploads/Position%20statements/Protection/NFCC_Position_Statement_Single_Staircases__Final.pdf