

Report for An Bord Pleanála

on

**Appeal against Condition 3 on Fire Safety Certificate FSC/400/20
(Reg. Ref. 19/6199F)**

for

**The Proposed Development of three Residential Blocks (B3, B4 &
B5) consisting of 5 storeys over a shared basement carpark**

at

Beechpark & Maryfield, Knocklyon, Dublin 16

Client: An Bord Pleanála
An Bord Pleanála Ref: 307830-20
Our Ref: ABP_R012_Issue 1
Date: 2nd May 2021

1.0 Introduction

This report sets out my findings and recommendations on the appeal submitted by JGA, acting on behalf of Ardstone Homes Ltd., against Condition 3 on Fire Safety Certificate FSC/400/20 by South Dublin County Council in respect of an application for works related to Proposed Development of three Residential Blocks (B3, B4 & B5) consisting of 5 storeys over a shared basement carpark at Beechpark & Maryfield, Knocklyon, Dublin 16.

It is noted that having regard to the nature of the Conditions under appeal, it is considered that the appeal can be adjudicated upon without consideration of the entire of the application.

1.1 Subject of Appeal

Condition 3 of the granted Fire Safety Certificate (FSC/400/20) by South Dublin County Council is as follows: -

Condition 3:

Store room enclosures directly from all open plan kitchen / living room areas shall be provided with 30 minutes fire rated construction.

Reason:

To comply with Part B of the Second Schedule to the Building Regulations 1997 to 2020.

2.0 Documentation Reviewed

- 2.1 Fire Safety Certificate Application (application form, compliance report and fire safety drawings) submitted by JGA, on behalf of Ardstone Homes Ltd, on 12th December 2019.
- 2.2 Email and letter correspondence between South Dublin County Council and JGA with respect to Extension of Times.
- 2.3 Additional Information from JGA to Dublin Fire Brigade dated 24th February 2020 (received 24th March 2020).
- 2.4 Additional Information from JGA to Dublin Fire Brigade dated 8th April 2020 (received 14th April 2020).
- 2.5 Additional Information request from DFB to JGA dated 4th May 2020.
- 2.6 Additional Information from JGA to Dublin Fire Brigade dated 8th May 2020 (received 18th May 2020).
- 2.7 Granted Fire Safety Certificate No. FSC/400/20 from South Dublin County Council dated 7th July 2020.
- 2.8 Letter of Appeal from JGA, acting on behalf of Ardstone Homes Ltd., received by An Bord Pleanála on 5th August 2020.
- 2.9 Fire Officer's report on Fire Safety Certificate Appeal dated 26th August 2020 to An Bord Pleanála.
- 2.10 JGA response to Fire Officer's report dated 20th October 2020 to An Bord Pleanála.

3.0 Building Control Authority's Case

The main issue with the application is the fact that although all open plan apartments are provided with a sprinkler system, in accordance with BS 9251: 2014, there is no proposal to extend this to the store rooms within the open plan space.

Clause 5.4 of BS 9251: 2014 states that: -

- Sprinkler protection should be provided in all parts of the premises. However, unless required by a fire strategy or risk assessment, the following may be excluded: -
 - Bathrooms with a floor area of less than 5m².
 - Cupboards and pantries with a floor area of less than 2m² or where the least dimension does not exceed 1m.

Clause 5.5 of BS 9251: 2014 states that: -

- Residential sprinkler spacing and positioning should meet the following recommendations.
 - The potential for a shielded fire to develop should be taken into account.

As most of the store rooms proposed for the apartments are greater than 2.0m² and are not afforded sprinkler protection as recommended by BS 9251: 2014, it is necessary to provide passive fire rated protection to those 'shielded' areas.

4.0 Appellant's Case

Alternative recommendations, as referenced from TGD-B, can reasonably be taken as prima facie evidence of compliance e.g. relevant recommendations from BS5588 Part 1 (superseded by BS9991). The basis of compliance for the Fire Safety Certificate application is BS9991: 2015.

A BRE Crisp analysis was carried out to demonstrate that the location of cooking facilities within apartments will not impede access to the front door for escape. No other areas within open plan apartments are required to be enclosed in fire resisting construction for compliance with BS9991 or BS9251.

The most recent TGD-2006 AMD 2020 does not require store rooms within open apartments to be enclosed in fire rated construction, nor does it make any reference to store rooms in open plan apartments requiring any sort of additional fire protection.

DFB's additional requirement is without statutory basis and goes beyond the recommendations set out in the current TGD-B 2006 AMD 2020 for open plan apartments.

They further note: -

- The highest risk area where fires usually occur within apartments is the cooking facility and not store rooms. This is recognized by guidance documents TGD-B 2006 AMD 2020 and BS 9991 which make specific recommendations on the locations of cooking facilities to the means of escape.
- Given the area of the small store room the fire load within this space will be considerably less than what is located within the apartment itself. It is also noted that even if the store areas are filled to capacity, they are surrounded by an area which has sprinkler protection which will help limit the spread of fire.
- The BRE CRISP analysis did not have the store rooms enclosed with fire rated protection and demonstrated risk in sprinklered open plan apartments was less than no sprinklered apartment with hallway.

5.0 Consideration

It is noted BS9991: 2015 states the following with respect to open plan apartments: -

9.7 Open-plan flat design

Open-plan flat layouts should not be provided for accommodation where the occupants are not capable of independent evacuation.

Open-plan flats that do not have protected corridors or hallways but have bedrooms that are inner rooms without having an alternative means of escape, and that are accessed directly from a lounge or similar type accommodation, should be fitted throughout with a Grade D LD1 fire alarm and fire detection system in accordance with BS 5839-6:2013, and an AWFSS (see 11.2, Table 2).

Open-plan flats should meet the following specific recommendations.

- a) The size of the open-plan flat should not exceed 16 m × 12 m.
- b) Open-plan flats should be situated on a single level only.
NOTE 1 Single level flats exclude flats with galleries.
- c) The ceilings within the open-plan flat should have a minimum height of 2.25 m.
- d) The kitchen should be enclosed in open-plan flats having an area exceeding 8 m × 4 m. Cooking appliances in open-plan flats having an area smaller than 8 m × 4 m should not be adjacent to the entrance of the flat.

NOTE 2 An open-plan flat design is not compatible with small, single staircase buildings reliant upon internal protected entrance halls for lobby protection to the staircase enclosure.

It is noted TGD-B 2006 states the following with respect to open plan apartments: -

1.6.2 General requirements. Where an open plan flat is provided, each door between the flat and a protected corridor / lobby, or an open balcony / deck approach, should have a fire resistance equal to the fire resistance of the wall, but not more than 60 minutes, in accordance with Appendix B.

1.6.3 Internal Layouts. The means of escape requirements in open plan flats are determined by the maximum travel distance within the flat. Where the travel distance is less than or equal to 9 m, the provisions of 1.1.2 apply. Where the maximum travel distance exceeds 9 m, and where the appropriate alternate means of escape (see 1.1.2) has not been provided, the following provisions apply (see Diagram 9A):

- (a) a sprinkler system in accordance with Section 1.8 should be provided,

- (b) the flat should be situated on a single storey only,
- (c) the travel distance from any point in the flat to the final exit from the flat should not exceed 20 m,
- (d) a Fire Detection and Alarm System should be provided. It should consist of interconnected self-contained mainspowered / battery backed Smoke / Heat Alarms (Grade D), which should be provided in the following locations:
 - (i) all circulation areas that form part of an escape route within the dwelling,
 - (ii) all high fire risk areas/rooms e.g. kitchen, living rooms, utility rooms, and
 - (iii) all bedrooms, and
- (e) the kitchen:
 - (i) should be enclosed in storey height construction, which need not be fire resisting, or
 - (ii) if not enclosed, the flat layout should be designed such that an occupant escaping the flat should not have to approach within 1.8 m of the main kitchen cooking appliance.

A main kitchen cooking appliance is a cooking apparatus with a fixed connection to the dwelling's gas or electric energy infrastructure (for example, an oven and/or hob).

With either approach there is no recommendation that apartment store rooms should be enclosed with fire resisting construction. However, there is a requirement by reference to Clause 5.4 of BS 9251: 2014 that bathrooms with a floor area of 5m² or more and cupboards /pantries with a floor area of 2m² or more or where the least dimension exceeds 1m should be provided with sprinkler protection. DFB seem to believe that the appellant is not proposing to sprinkler protect these areas. The appellant states in their final letter that the sprinkler systems will be in compliance with BS 9251.

Therefore, it is considered prudent that the Condition 3 is replaced with a Condition that will provide clarity.

6.0 Reasons and Considerations

Having regard to the proposed layout of the building, the nature of the proposed works, the submissions lodged in connection with the Fire Safety Certificate application and the appeal the proposal to provide sprinkler protection to the open plan apartments in accordance with BS 9251: 2014 is sufficient to demonstrate compliance with Part B of the Second Schedule to the Building Regulations 1997 – 2020 in particular Section B1 – Means of Escape in Case of Fire. The Condition 3 to provide stores with 30 minute fire resistant enclosure and FD30S door sets is not deemed necessary but can be modified to allow the option to enclose with 30 minute fire rated construction where the stores exceed the size where they would be exempt.

7.0 Conclusions and Recommendation

On the basis of my findings and conclusions I recommend that An Bord Pleanála grant the appeal and instruct that Condition 3 is replaced with the following condition or similar: -

Condition 3: -

The open plan apartments will be provided with sprinkler protection in accordance with BS 9251: 2014. It is noted the following may be excluded: -

- *Bathrooms with a floor area of less than 5m².*
- *Store rooms, cupboards and pantries with a floor area of less than 2m² or where the least dimension does not exceed 1m.*

Where store rooms, cupboards or pantries exceed these limits they should be either provided with sprinkler protection or enclosed in 30 minutes fire rated construction.

Reason:

To comply with Part B of the Second Schedule to the Building Regulations 1997 to 2020.

Signed by:

Des Fortune

MSc(Fire Eng), BSc(Eng), CEng MIEI, MIFireE

Date: **2nd May 2021**