



An  
Bord  
Pleanála

## FSC Report

**ABP 315378-22**

---

<b>Appeal v Condition(s)</b>	Appeal to Condition attached to a Granted Fire Safety Certificate
<b>Development Description</b>	Fire Safety Certificate for the construction of a single storey basement and 2 No. apartment blocks overhead
<b>An Bord Pleanála appeal ref number:</b>	315378 – 22
<b>Building Control Authority Fire Safety Certificate application number:</b>	FSC2201601DR
<b>Appellant &amp; Agent:</b>	P. Lonergan and Sons Maze Fire Consulting Limited 12 Liska Avenue, Dublin Road, Newry, Co. Down, BT35 8TW
<b>Building Control Authority:</b>	Dublin City Council
<b>Date of Site Inspection</b>	Not Applicable
<b>Inspector/ Board Consultant:</b>	Eamon O Boyle, Eamon O Boyle, and Associates
<b>Appendices</b>	Not Applicable.

## 1.0 Contents

1.0 Contents .....	2
2.0 Introduction .....	3
3.0 Information Considered .....	3
4.0 Relevant History/Cases .....	3
5.0 Appellant's Case .....	4
6.0 Building Control Authority Case .....	6
7.0 Assessment .....	9
8.0 Conclusion / Recommendation .....	10
9.0 Reasons and Considerations .....	10

## 2.0 Introduction

- 2.1. A Fire Safety Certificate application was received by the Building Control Authority (Dublin City Council) on the 22<sup>nd</sup> March 2022. The application sought to demonstrate compliance with Part B of the Second Schedule of the Building Regulations (S.I. 497: 1997).
- 2.2. The application is concerned with the proposed development of apartment buildings (blocks 3 and 4) which are to be built over a common basement at Dun Oir residential development at Glenamuck Rd, Kiltarnan, Dublin 18.
- 2.3. The appeal relates to one condition (Condition 2) attached to the granted Fire Safety Certificate by the Building Control Authority (BCA) Dun Laoghaire-Rathdown County Council. The reason stated for condition 2 was *“to comply with the provisions of Part B of the Second Schedule of the Building Regulations 1997 – 2021”*.

## 3.0 Information Considered

- 3.1. In considering the application I have referred to the following information.

No.	Date	Description
1	22 <sup>nd</sup> March 2022 and 31 <sup>st</sup> October 2022	Fire Safety Certificate Application submitted to the Building Control Authority and Further Information together with ancillary drawings
2	16 <sup>th</sup> December 2022	The Appeal notification submitted by the appellants
3	10 <sup>th</sup> January 2023	Fire Officer's (BCA) Report on Fire Safety Certificate Appeal
4	10 <sup>th</sup> February 2023	Appellants commentary on the BCA's submission to An Bord Pleanala

## 4.0 Relevant History/Cases

- 4.1. I am not aware of any previous appeals that have been submitted in respect of similar issues have arisen.

## 5.0 Appellant's Case

The appellants grounds for appeal to Condition 2 of the Granted Fire Safety Certificate (**FSC2201601DR**) states that the apartment blocks have been designed to comply with Technical Guidance Document B (TGD B) (2020), each block being 6.15 metres high (as such it is substantially less than the 30 metre height above which sprinklers are required to comply with TGD B ( 2020)).

The building will not include open plan apartments, as the apartments are being designed to include a protected entrance hall (internal hallway within each apartment which will achieve 30 minutes fire resistance and doors opening onto the hallway will be FD 20 doorsets in accordance with BS5588 Part 1). As the building does not include open plan apartments, there is no requirement to provide residential sprinklers to comply with TGD B (2020).

The appellant further relies on Section 5.4.3.1 of TGD B, that the basement car parks are not normally expected to be fitted with sprinklers. Therefore, to comply with TGD B (section 5.4.3.1) and to ensure compliance with Part B "Fire Safety" of the Second Schedule of the Building Regulations sprinklers are not required and will not be provided in the basement car park area.

The appellant further states that to comply with TGD B (2020) there is no requirement to provide sprinklers within the basement car park of blocks 3 and 4.

In their commentary on the BCA's submission the appellant makes the following points:

Compliance with Part B (Fire Safety) of Building Regulations is demonstrated by complying with TGD B (2020), as noted in the guidance section of this document which states:

*“Where works are carried out in accordance with the guidance in this document (TGD B) this will prima facie, indicate compliance with Part B of the Second Schedule of the Building Regulations”.*

The appellant states, where a building has been designed to comply with TGD B (as is the case in blocks 3 and 4 in Dun Oir), it is deemed to comply with Part B (Fire Safety) of the Second Schedule of the Building Regulations.

The appellant also addresses issues in respect of Condition 1 of the Granted Fire Safety Certificate however, as this is not being appealed it is not proposed to address the points raised regarding Condition 1.

The appellant addresses points raised in reference to the provisions for open sided car parks as reference in TGD B’s published in 1997, 2006, and 2020 ( reprint ) which are above ground and are considered open sided (ventilation provided is equivalent to 5% of the area of the car park ). It is noted that in section 3.5 .2 of TGD B ( as referenced by the fire by the building control authority) that:

- *Where the car park is well ventilated, there is a low probability of fire spread from one storey to another. Ventilation is the important factor, as heat and smoke cannot be dissipated so readily from a car park that is not open sided fewer concessions are made. The guidance in paragraphs 3.5.2.2 to 3.52.5 is concerned with three ventilation methods: open-sided (high level of natural ventilation),*

*natural ventilation and mechanical ventilation. It further states because of the above car parks are not normally expected to be fitted with sprinklers.*

The appellant further states that the basement car park only requires vents to be equivalent to 2.5% of the floor area of the basement, the car park will be naturally ventilated and the ventilation provisions will be equivalent to 8.4% of the overall car park area, which is in excess of the 5% required for an open sided car park. The venting provisions will ensure that heat and smoke will be dissipated and for this reason (as noted in TGD B) the car park is not required to be fitted with sprinklers.

## **6.0 Building Control Authority Case**

6.1. The BCA responded to ABP, their response was received on 10<sup>th</sup> January 2023 with their file on the application.

6.2. The (BCA) sets out its observations that the content of Condition 2 –is necessary. The BCA addresses issues raised in condition 1 of the Granted Fire Safety Certificate, as this condition is not being appealed it is not proposed to address the issues raised.

6.3. The building control authority's submission addresses many issues including the following:

- Technical Guidance Document B review.
- Technical guidance document B 2006 (2020 ) (reprint)
- Technical Guidance Document B - treatment of basement car park ventilation

- Draught Building Regulations
- Background research into car fires with a number of case studies
- Electric vehicles and fire safety - electric vehicle batteries and their fire risk
- Double Fire Brigade Firefighting intervention

6.4. The building control authority concludes that it is supportive of environmental policies and recognises the need to adopt changing technologies with regard to alternative fuels or sources for transportation. It further states that international and national guidance has not kept pace with the extensive use of plastics over the last 30 years or so, including plastic fuel tanks which has significantly changed the way that cars behave in a fire. Modern vehicle design cannot be subject to the same lag between a significant change in the fire load within buildings such as the subject case at the guidance which is supposed to support their safe design. i.e., car design is moving faster than revisions to TGD B.

Where guidance does lag, it may be said that buildings may be considered prohibitively dangerous for both their occupants and attending firefighters.

The building control authority suggests that research and innovation with battery technology continues to evolve which means that consideration needs to be given to how future technologies may behave in fire and potentially impacting on the built environment.

The building control authority calls for more research into fires and car parks with a view to establishing improvements in guidance for the requirements of sprinklers in car parks within technical guides document Bay.

The BCA feels that basement car park should not be deemed low risk with the world of fire and fire Lord. New paragraph the building control authority so suggests that guidance does not take into account the fire loading of modern vehicles electric vehicles hydrogen vehicles and the risk of running fuel fires from plastic fuel tanks.

The BCA further states that the outdated appreciation of fire load of modern vehicles in TGD B states that car parks are not normally expected to be fitted with sprinklers. The building control authority believe that a form of suppression such as sprinklers is vital to allow the suppression and control of fire development to allow for both safe means of escape for occupants (including persons with disabilities) and to allow fire crews to be able to access the basement for firefighting.

The BCA further states that it is clear that electric vehicle fires will become more commonplace. These occurrences in underground car parks with clearly exposed residents and firefighters to additional hazards. The installation of a sprinkler system to the underground car park appears to be the only viable solution in preventing fire spread to



other vehicles and potentially from one story to another at this point in time.

It is the view of the BCA that a multi electric vehicle car fires will be a significant challenge. In the future.

## **7.0 Assessment**

### **7.1. Details lodged with application**

We have examined the drawings, reports and submissions submitted and consider that the information is sufficient to enable ABP to make a determination in respect of this appeal.

### **7.2. Content of Assessment**

In making the assessment it is necessary to the degree of compliance in the application with the Technical Guidance Document B.

Having reviewed the plans and particulars lodged with the appeal as well as the commentary of the BCA, we are of the view that the particulars provided are adequate to enable the ABP to establish compliance with Part B of the Second Schedule of the Building Regulations.

Having considered the case made by the appellant and the commentary of the BCA I consider that the BCA were not correct in attaching Condition 2 to the granted Fire Safety Certificate. Our consideration is based upon the following:

- The fact that the basement design complies with the requirements of Technical Guidance Document B
- The BCA have produced no specific non-compliance with the Dun Oir application and have largely confined their submission to the

inadequacy of Technical Guidance Document B in addressing basement carparks..

In the case of Condition 2 having considered the case made by the appellants and the commentary of the BCA I consider that the BCA should have considered the application within the provisions of Technical Guidance Document B..

## **8.0 Conclusion / Recommendation**

8.1. My overall conclusion in this appeal is the Condition No. 2 should be removed.

## **9.0 Reasons and Considerations**

Having regard to the form and nature of the condition, the submission lodged with the Fire Safety Certificate Application and the Appeal, the reports from the BCA and the Appellant and to the report and recommendations of the reporting inspector and in particular the issues raised by the BCA, the Board is satisfied that it has been fully demonstrated that the condition should be removed.

---

Eamon O Boyle  
Chartered/Engineer  
Consultant/Inspector  
25<sup>th</sup> September 2023