



An
Bord
Pleanála

FSC Report

ABP-322590-25

Appeal

Appeal against a condition relating to the provision of sprinklers in a basement car park on a Fire Safety Certificate for the construction of a four-storey apartment block at Funchal, Stillorgan Road, Foxrock, Dublin 18.

Development Description

Construction of a four-storey apartment block over basement carpark at Funchal, Stillorgan Road, Foxrock, Dublin 18.

Building Control Authority Fire Safety Certificate application number:

FSC2304802DR/7DN

Appellant

Kingscroft Developments Limited,
9 Abbey House, Main Street,
Clonee, Co. Meath.

Appellant's Agent

ORS, Block A, Marlinstown,
Business Park, Mullingar,
Co. Westmeath, N91 W5NN

Building Control Authority:

Dun Laoghaire-Rathdown County Council.

Inspector

Denis O'Connell – DOCON Fire Safety Engineering Ltd.

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1.0 Introduction

1.1. A Seven Day Fire Safety Certificate application was submitted on 23/06/2023. Revised information was requested on 29/02/2024, 17/07/2024, 26/02/2025 and 14/03/2025. Revised information was submitted on 28/05/2024, 24/10/2024, 06/03/2025 and 14/03/2025. The Fire Safety Certificate was granted with five conditions on 01/05/2024.

1.2. The application was granted, and this appeal relates to the second condition which was -

Condition 2: The basement car park shall be provided with a sprinkler system in accordance with I.S. EN 12845:2015+A1:2019.

Reason: To ensure compliance with Parts B1 – B5 of the Second Schedule to the Building Regulations, 1997 to 2023

1.3 Information Considered

The information considered in this appeal comprised the following:

- Copy of BCA decision dated 01/05/2024.
- Report submitted on 23/06/2023 and 24/10/2024.
- Drawings submitted with the appeal date stamped 23/06/2023, 02/08/2023, 24/10/2024 and 06/03/2025
- Appeal received from ORS on behalf of the appellant on 21/05/2025.
- Submissions received from the BCA on the appeal on 27/06/2025.

2.0 Relevant History/Cases

2.1. The appellant has referenced multiple similar cases, which are-

- ABP 300409-17
- ABP 305955 -19
- ABP 307232-20
- ABP 307983-20
- ABP 312605-22
- ABP 318442-23
- ABP 315985-23

3.0 Appellant's Case

- 3.1. The appellant submits that sprinkler systems are not required in basement car parks in either Technical Guidance Document B "Fire Safety" 2006 (Reprint 2020) or in the new Technical Guidance Document B "Fire Safety" 2024. They state that TGD-B 2024 recommends sprinklers in apartment buildings if the top floor is over 15m in height. The top floor in this application is 9.45m in height.
- 3.2. The appellant also refers to seven no. previous cases where the condition relating to the provision of sprinklers in basement car parks was removed.

4.0 Building Control Authority Case

- 4.1. The Building Control Authority provides a substantial report providing information in relation to the following documents;
- i. The Fire Safety Certificate application and the information submitted.
 - ii. Requirements in relation to BS9251: 2021. The report states that this code *"would suggest that any ancillary spaces directly connected to a residential building should be sprinkler protected"*
 - iii. Technical Guidance Document B 1997, 2006 and 2020 and highlights the omission of *"there is evidence that fire spread is not likely to occur between one vehicle and another"* for the later 2006 and 2020 documents.
 - iv. TGD-B 2020 and requirements in relation to Basement Car Park Ventilation. They make the point that Electrical Vehicle cars burn more intensely and for longer periods. That there is also a concern in relation to toxicity from EV fires. That by 2030 there will be more EV cars than standard combustion vehicles.
 - v. Background Research into Car fires is reviewed including -
 - Fire Note 10 "Fire and Car Park Buildings", Ministry of Technology and fire Officers Committee Joint Fire Research Organisation, 1968,
 - i. Car park spaces were larger than the cars. This would indicate that the spacing was larger.
 - ii. Petrol tanks did not rupture. Reference is made to a later study which shows 85% of European cars have plastic fuel tanks.

- iii. Smoke layer remained at ceiling level which would not have been overly challenging for the attending Fire Brigade.
- iv. Fire Brigade in city areas attend 80% of carpark fires within 3 to 4 minutes.

The above research which was carried out in 1968 formed the basis for fire resistance ratings for car parks in the UK and Ireland. Fire resistance ratings have not increased since these ratings were set.

- BRE “Fire Spread in Car Parks” BD 2552, 2010.
 - i. Sprinklers were effective in controlling the fire. Without the sprinklers, the fire would likely have spread to adjacent cars.
 - ii. Fire conditions in enclosed car parks are more severe than in open sided car parks.
 - iii. Fires in apartment buildings show an injury rate that is relatively high compared to other types of buildings.
 - iv. During a fire, concrete spalling can be dangerous to firefighters.
 - v. It was noted that “the ease with which a car fire in a car park might spread to nearby cars has been demonstrated”.
- NFPA “Modern Vehicle Hazards in Parking Garages and Vehicle Carriers”, 2020
 - i. The increase in the use of plastics has added to the overall fire load in modern cars.
 - ii. Tests on modern vehicles have shown a rapid fire spread between vehicles and therefore the test data from older vehicles should not be used.
 - iii. The presence of sprinklers appeared to control a car fire until the fire Brigade arrived.
- vi. Case Studies – multiple case studies are described where car fires spread from the vehicle of origin.
- vii. Electric Vehicles – it discusses the risks associated with Lithium-Ion batteries and describes how fire growth is quicker, and firefighting requires larger quantities of water. They discuss the rise in sales of electric vehicles. They discuss concerns relating to structural integrity after an EV fire.

- viii. Broader Implications Considered – They review other issues including.
- Larger water supplies would be required for firefighting.
 - Toxic water run-off.
 - Toxic gasses emitted during an EV fire.
 - Potential for multiple EV fire increases over time.
 - Post fire storage of EV.
 - Full vehicle immersion post suppression.
- ix. Summary – They believe that the guidance is out of date and that “buildings may be considered prohibitively dangerous for both their occupants and attending firefighters”.

4.2. Content of Assessment

- 4.2.1. In making the assessment, reference was made to the submissions by the Appellant and the Building Control Authority. Reference was also made to
- Technical Guidance Document B - Fire Safety 2006 (reprinted 2020).
 - Technical Guidance Document B - Fire Safety 2024.
 - Previously assessed cases relating to sprinklers in basements.

5.0 Assessment

Having reviewed the submissions, the following notable points should be made

- 5.1.1. The applicable guidance document is TGD-B 2020 and it states in Section 5.4.3.1 that “*Basement car parks are not normally expected to be fitted with sprinklers*”. This standard is the basis for the design of the car park and compliance with TGD-B 2020 would be accepted as prima facie compliance with Part B of the Second Schedule of the Building Regulations.
- 5.1.2. The updated TGD-B 2024 would not require sprinklers in the car park in this application. A pertinent part of the case submitted by the Fire Authority relates to data which they believe was not considered when drafting the guidance document. The new TGD-B 2024 did not include a requirement for sprinkler systems within basement car parks (except for particular circumstances which are not applicable in this case) though this information would of been available to the authors of the updated guidance document.

- 5.1.3. It is relevant to note that An Bord Pleanála have adjudicated on several similar cases and have removed the condition relating to sprinklers in basement car parks.

6.0 Recommendation

- 6.1. My recommendation in this case is that Condition 2 should be removed from the Fire Safety Certificate

7.0 Reasons and Considerations

1. Having regard to the proposed use of the premises and the compliance report, drawings and submissions received from the appellant in relation to Fire Safety Certificate application and the appeal, and to the report and recommendation of the reporting inspector, it is considered that it has been demonstrated by the first party appellant in the fire safety application and appeal that the premises is in compliance with the requirements of Part B5 of Technical Guidance Document B - Fire Safety 2006 (reprinted 2020) [TGD: Part B].
2. The Building Control Authority have not clearly demonstrated the need for the provision of a sprinkler system in relation to the premises. Therefore, condition number 2 as originally attached by the Building Control Authority to the grant of the fire safety certificate is not required and should be removed.
3. The Board was satisfied that the appeal for the removal of Condition 2 on the Fire Safety Certificate is granted

8.0 Sign off

I confirm that this report represents my professional assessment, judgement and opinion on the matter assigned to me and that no person has influenced or sought to influence, directly or indirectly, the exercise of my professional judgement in an improper or inappropriate way.

Denis O'Connell BE C-Eng

28th October 2025