



An
Coimisiún
Pleanála

FSC Report ACP-324065-26

Appeal v Refusal or Appeal v Condition(s)

Appeal against Condition 2

Development Description

Construction of a new apartment
development at Hollywood Road,
Hollywoodrath, Fingal

Building Control Authority Fire Safety Certificate application number:

Fingal County Council – Submission
No: 3036740

Appellant

Mr. Ronan O'Reilly, Unit 29
Southgate, Dublin Road, Drogheda,
Co. Meath

Appellant's Agent

BB7

Building Control Authority:

Fingal County Council

Inspector

Mr. Bryan Dunne

Contents

1.0 Introduction	3
2.0 Information Considered	3
3.0 Relevant History/Cases	4
4.0 Appellant's Case	4
5.0 Building Control Authority Case	7
6.0 Response by the Appellant to the Building Control Authority Report	14
7.0 Assessment	15
8.0 Recommendations	16
9.0 Reasons and Considerations	16
10.0 Conditions	16
11.0 Sign off	16

1.0 Introduction

- 1.1. The application is for an apartment development at Hollywood Road, Hollywoodrath, Fingal. The development will consist of two apartment blocks with balconies and a shared podium communal space above a ground floor car park containing car, motorbike, bicycle and bulky storage. Block A is four storey (three storey over podium) and contains 18 apartments. Block B is five story (4 story over podium) and contains 28 apartments.
- 1.2. The application made to the Building Control Authority (BCA) was for a standard Fire Safety Certificate application.
- 1.3. A decision was made by the BCA to grant a Fire Safety Certificate (FSC) with 5 No. conditions, of which, only Condition 2 are being appealed.

Condition 2:

Sprinkler protection shall be provided to the ground level carpark in accordance with I.S. EN 12845:2015+AC:2016+A1:2019.

Reason:

To comply with the provisions of Part B of the Second Schedule to the Building Regulations 1997 to 2024.

2.0 Information Considered

2.1. The information considered in this appeal comprised the following:

- An Bord Pleanála Case No. ACP-324065-26
- A copy of the Fire Safety Certificate application documentation uploaded to the BCMS system on the 15th October 2025
- A copy of the additional information uploaded by the Appellant to the BCMS system on the 15th October 2025
- A copy of the additional information uploaded by the Appellant to the BCMS system on the 10th December 2025
- A copy of the granted Fire Safety Certificate (Submission No. 3036740) dated 7th January 2026

- Appeal submission letter by The Appellant to An Bord Pleanála dated 7th February 2026
- A copy of the Fire Officers Report dated 9th March 2026
- Additional submission letter by The Appellant to An Bord Pleanála dated 20th April 2026

3.0 Relevant History/Cases

3.1. Previously granted Fire Safety Certificates (not the application report or drawings) were included in the case file reviewed. These certificates related to various apartment blocks within the Tyrellstown District Centre on Hollywood Road, Mulhuddart, Dublin 15. As neither the appellant nor the Building Control Authority (BCA) referred to these applications, it has been concluded that they are not directly relevant to the appeal site.

4.0 Appellant's Case

4.1. When complete the development will provide 46 individual apartments. Block A consists of three levels of apartments over ground floor level. Each level of Block A will consist of six apartments. Block B consists of four levels of apartments over ground floor level. Each level of Block B will consist of eight apartments except for the 4th floor which will consist of four apartments. Both cores are connected at ground floor level by a shared car park and associated ancillary spaces such as bin stores, comms rooms etc. The proposed top floor heights of Block A is 9.45m and Block B is 12.6m each block is served by a single stair enclosed with fire resistant construction

4.2. Their basis of compliance for this application was TGD-B 2024.

4.3. The FSC application was submitted on the 15th October 2025 with additional information (AI) requested on the 4th December 2025. As part of the AI, the appellant was informed that *"the Dublin Fire Brigade Sprinter conditioned for car parks will be included in this FSC recommendation"*.

4.4. The appellant opens with the argument that this condition exceeds the requirements of Part B of the Building Regulations and is not supported by TGD-B or any national guidance.

4.5. They highlight that there is no requirement to provide sprinklers within a normal car park in TGD B. They make the point that there are various building designs that requires sprinklers however they do not arise here, as:

- Apartments are provided with protected entrance halls
- Travel distances in common corridors are less than 7.5 m
- Building height is 12.6 m, below the 15 m sprinkler trigger

4.6. The appeal strongly emphasizes that the car park qualifies as an “open-sided car park” under TGD-B in that:

- There is no basement level
- Natural ventilation is provided
- Permanent ventilation openings $\geq 5\%$ of floor area are provided
- Ventilation openings are located on opposing elevations, and
- The car park separated from residential areas by compartment construction

4.7. The point is made that the fire safety provisions being provided are over and above the minimum requirements of TGD B in that:

- The car park is provided with two protected stairs leading directly to outside ensuring redundancy from a means of escape point of view
- The building has been designed for simultaneous evacuation
- In reality the occupant capacity of the car park will be low despite a conservative design load of 93 persons taken
- High risk areas have been separated in 60 minute fire resisting construction

4.8. The appellant make reference to Section 3.5.2 of TGD B 2020 which makes specific reference to the fact that sprinklers in car parks are not required, see below:

Car Parks

3.5.2 Buildings or parts of buildings used as parking for cars and other light vehicles are unlike other buildings in certain respects, and merit some departures from the usual provisions for the restriction of fire spread within buildings because:

- (a) The fire load is well defined and not particularly high;
- (b) 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, and 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 3.5.2.5 is concerned with three ventilation methods; open-sided (high level of natural ventilation), natural ventilation and mechanical ventilation.

Note: Because of the above, car parks are not normally expected to be fitted with sprinklers.

4.9. Reference are also made to BS 9999-2017 & BS 7346-Part 7:2013 neither of which require sprinkler protection in car parks

4.10. The appellant concludes their initial submission by comparing this development to a development which was granted an FSC (FSC2104644DC_7DN) back in 2022 without the same sprinkler condition and highlight that this 2022 application was for a higher risk development than the current application, see below.

Parameter	Block 02 Northern Cross	Kilmartin Local Centre-Residential
Application Lodgement date	26.07.2021	15.10.2025
Application Grant Date	24.01.2022	7.01.2026
Building Height (Top floor above ground level)	26.6m	12.3m
Number of Basements/carpark levels	2	1
Area of basement carpark	c. 3,163m ²	c. 1,264m ²
Single Stair connecting to Carpark?	Yes	No (two stairs with two exits directly to the external)
Open Plan apartments provided?	Yes	No (protected entrance halls)
Basement Carpark Ventilation Provision %	5%	5%
DFB condition for commercial sprinklers to Carpark?	No.	Yes

It is for the above reasons the appellant requests Condition 2 be removed.

5.0 Building Control Authority Case

5.1. In support of their case for sprinkler protecting the proposed ground car park the BCA's response to this appeal was broken down under the following headings:

- Dublin Fire Preventions Observations and Assessment of the FCC Application & Appeal
- Appendix A: Fire Risks Associated with Modern Vehicles in an Enclosed Car Park:
 - Review of evidence derived from research into the fire risks associated with modern vehicles
 - Case Studies
 - Electric Vehicles
 - Structural Integrity / Fire Protection Concerns
 - TGD-B Basement Car Park Ventilation
 - Broader Implications Considered
- Appendix B: Characterizing EV vs ICE Hazards in Parking Structures: Results of Full-Scale Testing

➤ Conclusion

Dublin Fire Preventions Observations and Assessment of the FCC Application & Appeal

The BCA open their rebuttal by pointing out that as part of their additional information request, they included a request that sprinkler protection be provided within the car park and while the appellant acknowledged this request they did not propose their inclusion. The BCA make the point that while the charging points were not shown on the submitted floor plans EV vehicles are commonly used in car parks and are a major concern for operational crews in Dublin Fire Brigade and throughout the country.

They contend that as per the “*fire safety objectives*” in TGD B, Part B of the Second Schedule of the Building Regulations is “*primarily concerned with the health, safety and welfare of persons*” in a building which they argue is for both building occupants and fire brigade personnel.

They emphasise the fact that while Section 3.5.2 of TGD-B 2006 + A1: 2020 refers basement car parks “*are not normally expected to be fitted with sprinklers*”, this is on the following basis:

- a) *The fire load is well defined and not particularly high;*
- b) *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, and 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 3.5.2.5 is concerned with three ventilation methods; open-sided (high level of natural ventilation), natural ventilation and mechanical ventilation.*

The BCA do not agree with either of these statements making the points that EV batteries:

- Fire burns for longer
- Release more heat and smoke
- Trigger “thermal runaway” reactions and

- Due to increase fire loads together with the common use of plastic fuel tanks are likely to result in fire spread between vehicles.

Review of evidence derived from research into the fire risks associated with modern vehicles

As part of their submission the BCA makes reference to the following documents:

1. Fire Note 10 “Fire and Car Park Buildings” produced by The Ministry of Technology and Fire Offices Committee Joint Fire Research Organisation, 1968
2. “Fire Spread in Car Parks” produced by the BRE in 2006 after been commissioned by the UK Department of Communities and Local Government
3. “Natural Fires in Closed Car Parks” research undertaken by Daniel Joyeux, 2007
4. NFPA research report ‘Modern Vehicle Hazards in Parking Structures and Vehicle Carriers, 2020

A summary of the research above identified:

- The cars used and the material they were constructed from have a far lower calorific value than modern vehicles.
- Compared to when the above studies were undertaken, the predominant manufacturing material in cars is now plastics which adds significantly to the overall fuel load of the vehicle.
- The higher plastic content can lead to faster flame spread within a vehicle, easier ignition, and more rapid fire spread between neighbouring vehicles.
- It is expected that during the early stages of a vehicle fire the failure of plastic fuel tanks is expected and will spread fire.
- Modern cars are larger than those used in the above studies.
- Vehicle fire temperatures in excess of 1100dec C are expected as a result of larger vehicles in tighter spaces with lower ceilings.
- Sprinklers are effective in both controlling a developing and fully developed fire. Without sprinklers fire is likely to spread from car to car

and dangerous levels of smoke are likely for longer periods (BD2552 p.46).

- Concerns are raised with regard to assumptions that fire services attend 3 out of 5 fires within 3 minutes in metropolitan areas.
- Basement car parks can no longer be considered to have well defined fire loads, and
- For enclosed car parks, sprinkler systems are generally considered adequate to control a vehicle fire until the arrival of the fire service.

Case Studies

The BCA includes a list and brief summary of relevant case studies from car park fires both nationally and internationally where fire spread beyond the vehicle of origin and involved multiple vehicles which in some instances resulted in fatalities.

Electric Vehicles

The BCA put forward evidence from Hertzke et al (2018) on the increase in the sales of EV cars in the period 2010 to 2017 and from Diaz et al (2020) & DETEC (2020) stating that fires involving lithium-ion batteries pose hazards significantly different to conventional fires in terms of initiation, rate of development and toxicity of emissions. In addition, Diaz et al (2020) identifies particular challenges with respect to EV's including thermal runaway, the fact that lithium-ion batteries can fail very quickly after sustaining damage, the long extinguishing time for these types of vehicles, water quantity required for extinguishing purposed and recycling of damaged vehicles.

Dublin Fire Brigade Firefighting Intervention

The BCA note that it is generally accepted that fires in electric vehicles pose a significant range of challenges not normally associated with internal combustion engine (ICE) vehicles, including the need for greater quantities of water to extinguish a fire and the fact that EV fires also have a propensity to reignite.

Firefighting Operations with ICE Cars

The BCA point out that in their standard approach to dealing with ICE car fires, typically the fire is extinguished within 3-4 minutes with the entire incident taking less than 15-20 minutes and provide a table showing a summary and comparison of the risks associated with modern vehicles which Dublin Fire Brigade personnel typically encounter:

Risk	ICE Car Fires	EV Car Fires	EV Vehicle Notes
Environmental Damage	Environmental damage from firefighting water run off	Environmental damage from firefighting water run off	Exponentially higher toxic runoff containing heavy metals given the quantities of water needed to extinguish
Gases produced	Large volumes of Carcinogenic/Mutagenic/Reproductive toxin gases	Large volumes of Carcinogenic/Mutagenic/Reproductive toxin gases	Given the extinguishment difficulties, Toxic Smoke production is likely to greatly exceed ICE Vehicle values
Fire Spread	Potential for fire spread to other vehicles	Potential for fire spread to other vehicles	Given the extinguishment difficulties, the likelihood for fire spread to adjoining vehicles increases significantly
Heat Release Rate	High heat release rate ($\geq 3\text{MW}$)	High heat release rate ($\geq 3\text{MW}$)	Similar values identified
Effluent	Corrosive/Toxic effluent from battery	Corrosive/Toxic effluent from battery	See environmental damage above
Fuel Tanks	Potential for plastic fuel tank to rupture creating a running fuel fire	Not Applicable	Not Applicable
Pyrotechnic Explosion	Potential for Pyrotechnic explosion of airbag inflators system	Potential for Pyrotechnic explosion of airbag inflators system	Similar characteristics
Smoke Spread and Volume	Possible smoke egress into stairwells compromising means of escape	Possible smoke egress into stairwells compromising means of escape	Higher smoke volumes exacerbate this risk
Shock Hazard	Not Applicable	Electric Shock hazard	High Voltage Battery System

Table 2: Car Fire Risk Comparison

EV Firefighting Operations

Here the BCA address the phenomenon known as thermal runaway which is a chain reaction that produces an uncontrolled release of heat from the battery pack. The difficulty firefighters experience in dealing with this process include:

- Access to the battery area to deliver water
- The high levels of water required to extinguish this type of fire
- The possibility of the battery reigniting several hours later

Structural Integrity / Fire Protection Concerns

The BCA make reference to the research carried out by Mr. Martin Shipp et al for the BRE on enclosed car park fires which concluded that as a result of the presence of alternative fuels further research should be undertaken on the structural protection to enclosed car parks. They give the example of a Merseyside car park which while having significantly higher protection than the minimum 15-minute requirement still had significant structural failures during a fire.

TGD B - Basement Car Park Ventilation

The BCA note that under Section 3.5.2 of TGD-B the current minimum ventilation requirements for mechanical or natural ventilation are typically 10 air changes per hour or 2.5% of the car park floor area, with the ventilation being provided primarily to move the products of combustion away from the fire location which in turn assists in the control of fire spread and protects the lives of fire fighters. The point is raised that there is currently no requirement in BS 7347-7: 2013 to meet any set visibility or temperature criteria for either the means of escape or the firefighting phase of any fire incident and that the existing ventilation requirements are very likely to be inappropriate for multiple vehicle fires.

In addition, they make the point that EV car fires produce higher volumes of smoke with a prolonged burn period which in turn exasperates the risk in the basement from both a means of escape and firefighting operations point of view.

Broader Implications Considered

Additional considerations identified by the BCA include:

- The significant amount of water required to extinguish an EV fire
- An increase in the number of responding appliances to 2 possibly 3 pumps per incident
- The high quantity of toxic water runoff
- Toxic gases contaminating firefighters PPE requiring a full change after each EV fire
- The increase in the number of EV's increases the potential for multi-EV incidents putting additional demands on BCA resources
- The transport of the EV post suppression to mitigate against the potential for re-ignition
- The likely hood of the fire brigade having to escort the transported EV post fire incident
- The possible need for the BCA to consider full vehicle immersion technology post suppression

Appendix B: Characterizing EV vs ICE Hazards in Parking Structures: Results of Full-Scale Testing

The document summarises research commissioned by the Fire Protection Research Foundation into the fire risks posed by battery electric vehicles (BEVs) compared with internal combustion engine (ICE) vehicles in parking structures. The study concludes that modern vehicle fires, including those involving EVs, present a significant fire hazard in parking structures. Full-scale testing showed that sprinkler systems are an important and effective primary fire protection measure.

Conclusion

It is the view of the BCA that past assumptions in respect to car parks such as “*the fire load is defined and not particularly high*” and “*car parks are not normally*

expected to be fitted with sprinklers" can no longer be relied upon and that sprinklers are vital to allow the suppression and control of fire development to allow for both the safe means of escape of occupants and allow fire crew safely access the basement car park for firefighting.

Is it for these reasons that the BCA are looking for Condition 2 to be upheld.

6.0 Response by the Appellant to the Building Control Authority Report

Further comments provided in relation to Condition 2

1. The appellant counters the claim by the BCA that the existing guidance is based on outdated assumptions by pointing out that TGD B was updated as recently as 2024 and 2026, and the sections regarding car park sprinklers remained unchanged.
2. They argue that in the recently updated versions of TGD B and BS 9999, a development of this scale wouldn't require the provision of car park sprinklers.
3. The appellant states that a review of fire statistics from 2000 – 2021 indicates that motor vehicle car park fires decreased by 50% compared to the 2000–2009 period and that, there were no fatalities resulting from vehicle fires in car parks between 2000 and 2024.
4. They classify the car park as "normal" because it complies with all minimum recommendations for travel distances, smoke venting (2.5% of floor area), fire fighter access and highlight that the car park is at grade level, not a basement, which enhances ease of access for firefighting.
5. Finally to address BCA's concerns regarding EV's they make the point that modern charging infrastructure must comply with strict safety regulations (S.I No 393: 2021) and that modern EVs have battery management systems to prevent overcharging.

For all the reasons previously mentioned the appellant argues that the Installation of sprinklers in car parks is not required for compliance with the Building Regulations as set out in the Fire Safety Certificate report for the building and request the removal of Condition 2.

7.0 Assessment

7.1. De Novo assessment/appeal v condition

Having considered the drawings, details and submissions on the file and having regard to the provisions of Article 40 of the Building Control Regulations 1997, as amended, I am satisfied that the determination by the Board of this application as if it had been made to it in the first instance would not be warranted. Accordingly, I consider that it would be appropriate to use the provisions of Article 40(2) of the Building Control Regulations, 1997, as amended.

7.2. Content of Assessment

Following a review of the submissions provided by both parties, the key points identified are as follows:

- The basis for this Fire Safety Certificate submission is TGD B 2024. Demonstrating compliance with this document constitutes prima facie compliance with Part B of the Second Schedule to the Building Regulations.
- TGD B 2024 does not require the provision of sprinkler protection to a car park level of the type proposed in this application.
- While the BCA references two appeal decisions in which sprinkler conditions were upheld, no evidence has been provided to demonstrate that the circumstances of those cases are comparable to the case at hand.
- Numerous determinations issued by ACP have removed sprinkler conditions for car park levels in similar contexts.

8.0 Recommendations

On the basis of my assessment, I recommend that An Bord Pleanála grant the appeal and instruct the BCA to remove Condition 2 from the Fire Safety Certificate for the reasons and considerations set out below.

9.0 Reasons and Considerations

Having regard to the original FSC application and appeal made, I am of the opinion that the appellant has demonstrated that there is no requirement for Condition 2. Therefore, this condition as originally attached by the BCA to the Fire Safety Certificate is not necessary to meet the guidance set out in TGD B or accordingly to demonstrate compliance with Part B of the Second Schedule to the Building Regulations 1997, as amended and should be removed.

10.0 Conditions

N/A - on this occasion Condition 2 should just be removed.

11.0 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.

Bryan Dunne

MSc, BSc, Dip (Eng), CEng, MIEI, Eur Ing

25th May 2026