



An  
Bord  
Pleanála

## FSC Report

**ABP-317349-23**

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### Appeal v Refusal or Appeal v Condition(s)

Appeal v Condition 3

### Development Description

Construction of 99 apartments from ground to 7<sup>th</sup> floor. Also located on the ground floor is resident's concierge hot desking space, ESB sub-station and other ancillary accommodation & car parking at Northwood Avenue, Dublin 9

### Building Control Authority Fire Safety Certificate application number:

FSC/129/23

### Appellant

M.B. McNamara Construction Limited

### Agent

Maze Fire Consulting (formerly Warringtonfire)

### Building Control Authority:

Fingal County Council

### Inspector

Stefan Hyde

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## 1.0 Introduction

- 1.1. The report sets out my findings and recommendations on the appeal submitted by Maze Fire Consulting [hereafter referenced as MFC] on behalf of M.B. McNamara Construction regarding a proposed development at Northwood Avenue, Dublin 9
- 1.2. The proposed development consists of the construction of 99 apartments from over eight levels including a resident's concierge, hot desking space, ESB sub-station, other ancillary accommodation & car parking at ground floor level.
- 1.3. The appeal was submitted against Condition 3 of the Fire Safety Certificate (Reg Ref FSC/129/23) granted by Fingal County Council [hereafter referenced as FCC] on 18<sup>th</sup> May 2023.

Condition 3 reads as follows:

**Condition 3:**

*The proposed Car Park (Including Ancillary Areas) shall be provided with a Sprinkler System in accordance with BS 9251: 2021.*

With the stated reason for the condition being:

Reason: To comply with the provisions of Part B of the Second Schedule to the Building Regulations, 1997 – 2022.

## **2.0 Information Considered**

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

- Appeal submission by MFC received by An Bord Pleanála on 15<sup>th</sup> June 2023
- Full copy of the FSC application package received by FCC in the course of the assessment of the FSC. Issued to An Bord Pleanála on 27<sup>th</sup> June 2023 by FCC following a request by An Bord Pleanála.
- Granted Fire Safety Certificate issued by FCC on 18<sup>th</sup> May 2023
- Response by the Building Control Authority [hereafter referenced as BCA] received by An Bord Pleanála on 6<sup>th</sup> July 2023
- Further submissions from the appellant received by An Bord Pleanála on 21<sup>st</sup> July 2023
- A MFC cover letter and accompanying drawing package of all floor plans issued by the BCA to An Bord Pleanála on 28<sup>th</sup> July 2023 in response to letter BP10 regarding the additional information request sent by the BCA on 16<sup>th</sup> March 2023 as part of the FSC application process.

### **3.0 Relevant History/Cases**

3.1. There have been several appeals in relation to the imposition of sprinkler protection in car parks of residential developments over the past number of years. Below is a non-exhaustive list of recent comparable cases:

- ABP 315367-23
- ABP 315985-23
- ABP 317213-23

## 4.0 Appellant's Case

4.1. The appellant initially set out the appeal against Condition 3 of the FSC on the basis of the following:

- TGD-B 2020 only references sprinkler coverage in a building in two instances:
  - Where the building is >30m high; or
  - Where a residential building includes open plan apartments the design of which will comply with Section 1.6.3 (i.e. only sprinkler coverage in the apartments themselves unless of the course the building is >30m in height).
- Therefore, to comply with TGD-B (2020) there is no requirement to provide sprinklers within the car park which it is noted is located at ground floor level.

4.2. Following receipt of the BCA response to the initial appeal submission the appellant responded with the following points:

- Compliance with Part B "Fire Safety" of the Building Regulations – the appellant notes that in regard to TGD-B 2020 – ***"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"***
- They reiterate the points made in relation to the original appeal submission noting only two areas that TGD-B requires the imposition of sprinkler protection in developments of this type
- They address the proposed car park design specifically noting it is located at ground floor level with large sections beneath a podium slab. They note that car park has in excess of 5% natural ventilation proposed (in the original FSC application this was noted as 4.2%) and can be considered "open sided"
- They note that based on the above and in accordance with Clause 3.5.2 (b) of TGD-B that the car park is not required to be sprinkler protected
- They further note that Table 3.1 infers that given there are no limits to the area or volumes of car parks that sprinklers are not a requirement

## 5.0 Building Control Authority Case

5.1. The BCA responded to the appellants submission with a response summarised below which contained an introduction, observations and then highlighted previous papers/research by others, examples of car park fires, risks associated with fighting car fires encountered by DFB, Structural integrity/Fire Protection Concerns, TGD-B – Basement Car Park Ventilation, Broader implications and a conclusion :

- Introduction setting out the proposed development, the basis of compliance of the application being noted as TGD-B and noting that following the review of the application and the additional information submissions the granting of an FSC with fourteen conditions of which Condition 3 was the subject of appeal
- Dublin Fire Preventions (DFB) observations:
  - DFB note that TGD-B cannot prescribe to “every aspect of a building design”
  - They infer that the performance objectives set out in the Second Schedule of the Building Regulations allows for considerations of “new hazards due to changes in technology and materials”
  - They note that concerns were raised with regard to EV Car fires at Basement Level and there was a lack of consideration of the additional risks posed by such vehicles
  - On the basis of the above concern it was now DFB policy to Sprinkler Protect Basement Car Parks
- Evidence derived from research into the fire risks associated with modern vehicles – DFB are submitting that Fire Resistance ratings of car parks have not changed since 1968
- BRE, Fire spread in car parks, BD 2552, Department for Communities and Local Government – a number of statements are made regarding extracts from these documents
- NFPA, Modern Vehicle Hazards in Parking Garages & Vehicle Carriers, 2020 – there is a summary of the document however no specific statement in relation to the design proposed in this instance

- Case studies of 13 examples from of car park fires both within its jurisdiction and internationally from a period ranging from 2003 to 2020. The examples range from basement car parks to above ground open sided.
- Brief summary of risks associated with modern vehicles which DFB operation personnel typically encounter highlighting increased potential higher environmental risks and smoke generation from EV car fires.
- Structural integrity/Fire Protection Concerns – DFB note that structural fire ratings for basement car parks do not take account of the fire load of cars with extensive plastics, and nor for the extensive use of Electric Vehicles
- TGD-B Basement Car Park Ventilation – DFB propose that the provision of 2.5% natural ventilation in a basement car park is not sufficient. They acknowledge that 4.2% is proposed as part of the design
- Broader implications – DFB note a number of reasons why they believe it would be more appropriate to sprinkler protect a basement car park
- In conclusion DFB note that taking account of the above and their interpretation of the Building Regulations that the Condition should be upheld.



## 6.0 Assessment

- 6.1. 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.

- 6.2. The appellant provides clear indications as to the basis of their design which is demonstrated in the FSC application submission and is further highlighted in the appeal submission noting that sprinklers have been provided solely as a requirement of the open plan apartment type design in the development.
- 6.3. The appellant clearly states the requirements of TGD-B in relation to the provision of sprinklers noting that Clause 3.5.2 (b) notes that “where a car park is well ventilated, there is a low probability of fire spread from one storey to another” and therefore “car parks are not normally expected to be fitted with sprinklers”
- 6.4. The BCA raise in a number of occasions the provision of sprinklers in basement car park however it is noted that the car park in the proposed development is located at ground floor level. This is an important point given that firefighter access to this car park is direct from external air and therefore significantly reduces the risk to firefighters when compared to a basement fire. There are multiple entry points to the car park via the residential cores and also the vehicle and bicycle entrances.
- 6.5. The BCA allude to the potential inadequacy of the current TGD-B 2020 however it has been revised three times since its introduction in 1991 and on each occasion the Local Authorities were afforded opportunities to make submissions in relation to proposed changes. Electric cars and cars with increased plastics have both been in wide use since TGD-B was revised in 2006 and 2020 and the Department of Housing and Local Government have not amended the provisions in relation to car parks (above ground or basement) in either instance.
- 6.6. The BCA note that the issue of EV cars was raised during the course of the FSC application however it is not clear from the information reviewed that this was raised. It is noted that there were two requests in the additional information submissions to

provide sprinklers in the car park (BS EN 12845 in the fire AI in line with “DFB policy” and BS 9251 in the second AI). Whilst not under the scope of this appeal it would have been possible for the BCA if EV cars was the concern to locate EV spaces externally noting there are a number of external spaces in the proposed development. It however is not clear that this was the issue rather a general requirement to provide sprinklers as per “DFB policy”.

- 6.7. The BCA request in the second AI submission that sprinklers be provided in the car park (including all ancillary areas) in accordance with BS 9251: 2021 is correctly refuted by MFC noting that 1.6.3 of TGD-B only requires sprinklers in the open plan apartments. BS 9251:2021 only mandates sprinkler coverage throughout where the entire building is considered a “protected building”, i.e. where the sprinklers are required which in the case of our development would only become a requirement if the building was >30m.
- 6.8. The appellant has submitted a design based on TGD-B 2020 which has been assessed by the BCA and deemed to comply with Part B of the Building Regulations subject to a number of conditions. The condition in relation sprinklers is based on a DFB policy position rather than any National Guidance. The BCA has not provided a clear basis to dismiss the use of TGD-B as a route to guidance in this instance.

## **7.0 Recommendation**

- 7.1. Based on the above I would recommend that An Bord Pleanála direct the Building Control Authority to remove Condition 3.

## **8.0 Reasons and Considerations**

- 8.1. TGD-B 2020 does not require the provision of sprinklers in basement or above ground car parks as noted in Sections 3.5.2 and 5.4.3.1.
- 8.2. The appellant has submitted a design based on the guidance set out in TGD-B and therefore if they have complied with the provisions the design is therefore considered to comply with Part B of the Second Schedule to the of the Building Regulations.
- 8.3. The BCA has not given clear technical reasoning behind the imposition of sprinklers in Condition 3 of the granted FSC and a number of the points highlighted are in

relation to a basement car park which is not proposed in this instance. The benefit of the car park being located at ground level has not been credited by the BCA.

- 8.4. Therefore Condition 3 as originally attached by the Building Control Authority to the FSC 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. The Board was satisfied that, subject to the attachment of the remaining conditions (excluding Condition 3) as removed by the Board, it has been demonstrated that the proposed development, if constructed in accordance with the design presented with the application and appeal, would comply with the requirements of Part B of the second schedule to the Building Regulations 1997, as amended.

## 9.0 Conditions

- 9.1. Direct the Building Control Authority to remove Condition 3.

## 10.0 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.

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Stefan Hyde

02/07/2024