



An  
Bord  
Pleanála

## FSC Report

**ABP 316063-23**

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

Appeal v Condition 2

### Development Description

Construction of a residential and mixed use scheme of 186 apartment units in three number blocks (Block A,B & D/E) over shared basement, blocks ranging in height from six to eight storeys.

### An Bord Pleanála appeal ref number:

ABP-316063-23

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

FSC2205449DC/7DN

### Appellant & Agent:

Appellant : Durkan (Brickfield Drive)  
Ltd

Agent: Factfire

### Building Control Authority:

Dublin City Council

### Date of Site Inspection

NA

### Inspector/ Board Consultant:

Luke Fegan

### Appendices

NA

## **Contents**

### **2.0 Introduction**

#### **2.1 Subject matter of the appeal**

#### **2.2 Documents reviewed**

### **3.0 Consideration of Arguments by Appellant and BCA**

### **4.0 Assessment**

### **5.0 Conclusion/Recommendation**

### **6.0 Reasons and Considerations**

### **7.0 Conditions**

## 2.0 Introduction

### 2.1 Subject Matter of Appeal

This report sets out my findings and recommendations on the appeal submitted by Factfire on behalf of Durkan (Brickfield Drive) Ltd., against Condition 2 of the granted Fire Safety Certificate (Reg Ref No. FSC2205449DC/7DN) issued by Dublin City Council [hereafter referenced as DCC] in respect of the *“Construction of a residential and mixed use scheme of 186 apartment units in three number blocks (Block A,B & D/D) over shared basement, blocks ranging in height from six to eight storeys”* at Brickfield Square, Brickfield Drive, Crumlin, Dublin 12.

The Fire Safety Certificate was granted on 22<sup>nd</sup> February 2023 with 18 conditions attached. The appeal to the Board relates to Condition 2.

Condition 2 reads as follows:

**Condition 2:**

*The basement car park is to be provided with a sprinkler system in accordance with BS EN 12845:2015 + A1 2019.*

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.*

De novo consideration is not warranted, and the Board can rely on the provisions of Article 40(2) of the Building Control Regulations and deal with the appeal on the basis of conditions 2 only.

## 2.2 Documents Reviewed

Factfire

Ref no: 21-273\_Appeal/reply001

Dated: 2<sup>nd</sup> June 2023

Appeal against condition attached FSC SN 3009353 / FSC 2205449DC/ 7DN Responding to fire officer report issued on 12<sup>th</sup> April 2023

Fire Officer's supplementary report on fire safety certificate appeal 12<sup>th</sup> April 2023

Factfire appeal submission dated 15<sup>th</sup> March 2023

Factfire

Ref no: 21-273\_FSC\_Blocks A, B, C D&E and Basement

Dated: 17<sup>th</sup> February 2023

Drawing submitted (FS-02\_005) as per BCMS request from 17.02.2023

Factfire

Ref no: 21-273\_FSC\_Blocks A, B, C D&E and Basement

Dated: 10<sup>th</sup> February 2023

The letter is responds to request for AI from 02<sup>nd</sup> Feb 2023.

Drawing submitted (FS-02\_004 & FS-03\_004) as per BCMS request from 02.02.2023

Provides revised compliance report – 21-273 issue 004 (10.02.2023)

Factfire

Ref no: 21-273\_FSC\_Blocks A,B,D&E and Basement

Dated: 20<sup>h</sup> December 2022

The letter is responds to request for AI from 16<sup>th</sup> November 2022.

Provides revised compliance report – 21-273 issue 003 (20.12.2022) & number of drawings as per the BCMS request.

BCMS – 29.10.2022 request for further plans , calculations, specifications

Factfire submitted revised compliance report 21-273 issue 002 (30.09.2022)

Factfire Submitted compliance report 21-273 issue 001 (26.09.2022)

Factfire

Ref no: 21-273 Appeal

Dated: 14.03.2023

Appeal against condition 2 attached FSC sn3009353/FSC2205449DC/7DN

## Maps / Drawings

Drawing No.	Drawing Title	Scale	Submitted in Relation to
FS_02	Proposed Site Plan	1:250@A1	Submitted To BCA on 17.02.2023
FS_02 FS_03	Proposed Site Plan Proposed Basement Plan	1:250@A1 1:125@A0	Submitted to BCA on 13.02.2023 with report 10.02.2023
FS_02 FS_03 FS_06 FS_07 FS_08 FS_09 FS_13 FS_14 FS_15 FS_16 FS_17 FS_18 FS_19 FS_20 FS_24 FS_25 FS_26 FS_27 FS_28 FS_29 FS_30 FS_34A FS_34B FS_36	Proposed Site Plan Proposed Basement Plan Block A – Proposed Second Floor Plan Block A - Proposed Third Floor Plan Block A – Proposed Fourth Floor Plan Block A – Proposed Fifth Floor Plan Block B - Proposed Ground Floor Plan Block B – Proposed First Floor Plan Block B – Proposed Second Floor Plan Block B – Proposed Third Floor Plan Block B – Proposed Fourth Floor Plan Block B – Proposed Fifth Floor Plan Block B – Proposed Sixth Floor Plan Block B – Proposed Seventh Floor Plan Block D/E – Proposed Ground Floor Plan Block D/E – Proposed First Floor Plan Block D/E – Proposed Second Floor Plan Block D/E – Proposed Third Floor Plan Block D/E – Proposed Fourth Floor Plan Block D/E – Proposed Fifth Floor Plan Block D/E – Proposed Sixth Floor Plan Vent Sections A, B & F Vent Sections D, E & F South Elevations	1:125@A0 1:100@A1 1:100@A1 1:100@A1 1:100@A1 1:100@A1 1:100@A1 1:100@A1 1:100@A1 1:100@A1 1:100@A1 1:100@A1 1:100@A1 1:100@A1 1:150@A1 1:150@A1 1:150@A1 1:150@A1 1:150@A1 1:150@A1 1:150@A1 1:50@A1 1:50@A1 1:100@A1	Submitted to BCA on 20.12.2022 with report dated 20.12.22
FS-01 FS-02 FS-03 FS-06 FS-07 FS-08 FS-09 FS-15 FS-17 FS-18 FS-19 FS-20 FS-22 -N FS-22 -E FS-22 -S FS-22 -W FS-24 FS-25	Site Location Map Proposed Site Plan Proposed Basement Plan Block A – Proposed Second Floor Plan Block A – Proposed Third Floor Plan Block A – Proposed Furth Floor Plan Block A – Proposed Fifth Floor Plan Block B – Proposed Second Floor Plan Block B – Proposed Fourth Floor Plan Block B – Proposed Fifth Floor Plan Block B – Proposed Sixth Floor Plan Block B – Proposed Seventh Floor Plan Block B – Proposed North Floor Plan Block B – Proposed East Floor Plan Block B – Proposed South Floor Plan Block B – Proposed West Floor Plan Block D/E – Proposed Ground Floor Plan Block D/E – Proposed First Floor Plan	1:250@A1 1:125@A0 1:100@A1 1:100@A1 1:100@A1 1:100@A1 1:100@A1 1:100@A1 1:100@A1 1:100@A1 1:100@A1 1:100@A1 1:100@A1 1:100@A1 1:100@A1 1:100@A1 1:150@A1 1:150@A1	Received by BCA on 4.10.22 with report dated 30.09.2022

FS-28	Block D/E – Proposed Fourth Floor Plan	1:150@A1	
FS-29	Block D/E – Proposed Fifth Floor Plan	1:150@A1	
FS-32 -N	Block D/E – Proposed North Elevation	1:100@A1	
FS - 32-E1	Block D/E – Proposed East Elevation	1:100@A1	
FS-32 –E2	Block D/E – Proposed East Elevation	1:100@A1	
FS-32 – S	Block D/E – Proposed South Elevation	1:100@A1	
FS-32 – W1	Block D/E – Proposed West Elevation	1:100@A1	
FS-32 W2	Block D/E – Proposed West Elevation	1:100@A1	
FS-01	Site Location Map	1:500@A2	Received by BCA on 27.09.22 with report dated 26.09.2022
FS-02	Proposed Site Plan	1:250@A1	
FS-03	Proposed Basement Plan	1:125@A0	
FS-04	Block A – Proposed Ground Floor Plan	1:100@A1	
FS-05	Block A – Proposed First Floor Plan	1:100@A1	
FS-06	Block A – Proposed Second Floor Plan	1:100@A1	
FS-07	Block A – Proposed Third Floor Plan	1:100@A1	
FS-11 – N	Block A – Proposed North Elevation	1:100@A1	
FS-11 – E	Block A – Proposed East Elevation	1:100@A1	
FS-11 – S01	Block A – Proposed South Elevation	1:100@A1	
FS-11 – S02	Block A – Proposed South Elevation	1:100@A1	
FS – 11 – W	Block A – Proposed West Elevation	1:100@A1	
FS-12- AA	Block A – Proposed Section AA	1:100@A1	
FS-13	Block B – Proposed Ground Floor Plan	1:100@A1	
FS-14	Block B – Proposed First Floor Plan	1:100@A1	
FS-15	Block B – Proposed Second Floor Plan	1:100@A1	
FS-16	Block B – Proposed Third Floor Plan	1:100@A1	
FS-17	Block B – Proposed Fourth Floor Plan	1:100@A1	
FS-18	Block B – Proposed Fifth Floor Plan	1:100@A1	
FS-19	Block B – Proposed Sixth Floor Plan	1:100@A1	
FS-22 – N	Block B – Proposed North Elevation	1:100@A1	
FS-22 – E	Block B – Proposed East Elevation	1:100@A1	
FS-22- S	Block B – Proposed South Elevation	1:100@A1	
FS- 22- W	Block B – Proposed West Elevation	1:100@A1	
FS-23 – AA	Block B – Proposed Section AA	1:100@A1	
FS-23- CC	Block B – Proposed Section CC	1:100@A1	
FS-24	Block D/E – Proposed Ground Floor Plan	1:150@A1	
FS-25	Block D/E – Proposed First Floor Plan	1:150@A1	
FS-26	Block D/E – Proposed Second Floor Plan	1:150@A1	
FS-27	Block D/E – Proposed Third Floor Plan	1:150@A1	
FS-28	Block D/E – Proposed Fourth Floor Plan	1:150@A1	
FS-29	Block D/E – Proposed Fifth Floor Plan	1:150@A1	
FS-30	Block D/E – Proposed Sixth Floor Plan	1:150@A1	
FS-32-N	Block D/E – Proposed North Floor Plan	1:100@A1	
FS-32 – E1	Block D/E – Proposed East Floor Plan	1:100@A1	
FS-32- E2	Block D/E – Proposed East Floor Plan	1:100@A1	
FS-32- S	Block D/E – Proposed South Floor Plan	1:100@A1	
FS-32 – W1	Block D/E – Proposed West Floor Plan	1:100@A1	
FS-32- W2	Block D/E – Proposed West Floor Plan	1:100@A1	
FS-33 – DD	Block D/E – Proposed Section DD	1:100@A1	
FS-33 - EE	Block D/E – Proposed Section EE	1:100@A1	

### 3.0 Consideration of Arguments by Appellant and BCA

#### **Condition 2:**

*The basement car park is to be provided with a sprinkler system in accordance with BS EN 12845:2015 + A1 2019.*

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.*

#### **Case made by FACTFIRE in respect of Condition 2**

The key points made by FACTFIRE in the grounds for appeal submission dated 15<sup>th</sup> March 2023 are summarised as follows:

- 1) TGD B 2020 specifically states that *“basement car parks are not normally expected to be fitted with sprinklers”* and that this guidance has remained unchanged in the recent revision. Based on the above Factfire assert that their design is considered to follow TGD B and accordingly achieves “prima facie” compliance with Part B of the Building Regulations
- 2) Factfire surmise that the risk posed by an electric vehicle fire may be the basis of Condition 02 and that the supplementary dry falling main is in their Opinion considered to have mitigated the perceived risk
- 3) The agent highlights that the provision of a BS 9251 sprinkler system relates to the internal apartment design and extended corridor distances. Further highlighting that BS 9251 is a code of practice that takes the form of guidance.
- 4) The Agent refers to previous comparable adjudications
- 5) The purpose of a Fire Safety Certificate Application is to demonstrate compliance with Part B of the Building Regulations.
- 6) Although not required by TGD-B the building is in addition provided with AOVs at each gable and the roof material is such that in the event of even a small fire it will open further to provide significant venting.
- 7) A CFD Analysis report is provided by B Fluid

#### **Case made by DCC in respect of Condition 2**

The key points made by DCC in their “Fire Officer’s supplementary report on fire safety certificate appeal 12 April 2023” grounds for appeal submission dated 22<sup>nd</sup> February 2023 are summarised as follows:

- 1) DCC draws upon the basis of the TGD B 2020 guidance that states *“basement car parks are not normally expected to be fitted with sprinklers”* and highlight the underlying assumptions set out in 3.5.2 as follows:

- 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.”*

DCC challenges the above guidance and describes the provisions of TGD B 2020 as “outdated” and describe their understanding of the fire load and the fire dynamics. DCC include a series of case studies in Appendix A where they observe that current day vehicles and the associated fire challenge results *“in fire spread between vehicles in an enclosed space”* that they cannot reconcile with the assumptions set out in Clause 3.5.2 of TGD B 2020 that states *“Where the car park is well ventilated, there is a low probability of fire spread from one storey to another”*.

- 2) DCC assert that the double lobby to the stair/lifts at basement with a 0.4m<sup>2</sup> passive vent is not sufficient to address the deviation from Clause 14.4.2 BS 5588 Part 1 which recommends that *“If a common stair forms part of the only escape route from an upper storey of a building (or part) it should not be continued down to serve any basement storey unless in a small single stair building (see 12.3), in which case it should be separated at ground or access level by fire-resisting construction.* DCC set out that failure to comply with Clause 14.4.2 BS 5588 Part 1 is the basis of Condition 02. DCC state that sprinklers and the double lobby with the 0.4m<sup>2</sup> passive vent are required in order to justify the departure from compliance with Clause 14.4.2 of BS 5588 Part 1.
- 3) DCC set out that sufficient basement car park ventilation is not available in proximity of the *“10 electrical vehicle charging points located between the stairs serving Block B and D and the only car park ventilation provided within 15m of any of these parking spaces with charging points is 2.4m<sup>2</sup> out of a total of 202.8m<sup>2</sup> of ventilation”*.
- 4) DCC assert that the requirement for sprinklers in the car park arises because of the application of BS 9251.
- 5) DCC state that the absence of hose reels in the basement car park further justifies the imposition of Condition 2.

### **FACTFIRE response of the 2nd June 2023 in respect of “Fire Officer’s supplementary report on fire safety certificate appeal 12 April 2023”**

The key rebuttals made by FACTFIRE to the “Fire Officer’s supplementary report” are as follows:

- 1) Factfire challenges the DCC position that TGD B is outdated and highlights that BS 7346 Part 7 2013 acknowledges the fire load of modern day vehicles and does not recommend sprinklers
- 2) Factfire observe it is unreasonable to expect Designers to meet future requirements of the Building Regulations
- 3) Factfire note that their double lobby arrangement at basement where the stairs / lifts continues to serve the basement is a “commonly used compensatory measure”



## 4.0 Assessment

The Authority has made a generic reference to Part B of the Building Regulations as the basis of their reason for Condition 02. The absence of a suitably detailed reason makes a 3<sup>rd</sup> party assessment a difficult task. A detailed reasoning would have allowed full consideration by all parties.

The DCC request for further information of the 16/11/2022 does not assert non-compliance with Clause 14.4.2 BS 5588 Part 1 but rather seeks to ensure the double vented lobby detail is applied throughout. Furthermore, I would share the Agents Opinion that this is a “commonly used compensatory measure” necessary in order to satisfy both Part B&M of the Building Regulations. The matter is however addressed for Block B under Condition 7 which is not the subject of the appeal.

The DCC request for further information of the 16/11/2022 casts doubt on the basement ventilation compliance with Clause 3.5.2.4 of TGD B and raises concerns of a “lack of ventilation in other areas”. Clause 3.5.2.4 of TGD B requires “*each storey should be naturally ventilated by permanent openings at each level having an aggregate area not less than 2.5% of the floor area at that level, **of which at least half should be in two opposing walls. The number and disposition of smoke outlets should be such as to maximise the effectiveness of the ventilation***”. The matter is further raised in the request for further information of the 02/02/2023 which arose from a meeting. Subsequent to the meeting and request for further information of 02/02/2023, the Agent submitted revised particulars on the 10<sup>th</sup> February 2023 showing an “*additional vent on the east side of the basement*”. The subsequent request for further information of the 17/02/2023 is silent on the matter. No explicit condition has been imposed in respect of the compliance with Clause 3.5.2.4 of TGD B.

The Agent observes the difficulty speculation on future standards poses. DCC are clear on their view of the adequacy of the current National Fire Safety Guidance. I would note however it is not the responsibility of the Local Authority to publish Technical Guidance Documents. The revision and publication of Technical Guidance Documents is the subject of research, consultation, regulatory impact assessment, public consultation and finally a transitional arrangement.

Article 7 of the Building Control Regulations are unambiguous in assigning the responsibility to publish technical guidance documents to the “Minister”.

The suggestion that because a sprinkler system design to BS 9251 are installed in a building to address extended apartment corridor travel distances and to facilitate open plan internal apartment design gives rise to the car park needing sprinklers requires further consideration. BS 9251 2021 under “Relationships with other publications” stipulates that “*Guidance on the application of sprinkler systems is given in BS 5306-0, BS 9991, BS 9999, the Building Regulations 2010, Approved Document B for use in England [1], [2], Wales [3], [4] and its equivalents in Scotland [5], [6] and Northern Ireland [7]*”. BS 9251 2021 clearly states that the scope of the sprinkler coverage “application of sprinkler systems” is defined by the fire strategy i.e TGD B 2020 in this instance and not by BS 9251. BS 9251 is responsible for guiding the designer how to design and install a system as opposed to defining strategy. BS 9251 does not define strategy.

The inference that sprinklers are necessary because of the absence of hose reels is considered disproportionate and a more appropriate remedy in this instance would have been to seek hose reels by way of Condition.

The fact remains that the requirement in Section 5.4.3.1 of TGD B is very clear in that “*basement car parks are not normally expected to be fitted with sprinklers*”. The revision of national fire safety guidance is subject to due process.

It would be my opinion that not providing sprinklers in a basement car park is in compliance with Section 5.4.3.1 of TGD B which would generally be accepted as prima facie compliance with Part B of the Second Schedule of the Building Regulations.

## **5.0 Conclusion/Recommendation**

On the basis of my assessment, I consider that the imposition of Condition 2 is not necessary and I recommend that An Bord Pleanála should remove this condition.

## **6.0 Reasons and Considerations**

In relation to Condition 2, in my opinion the imposition of sprinklers by the BCA is not warranted.

## **7.0 Conditions**

Direct the Building Control Authority to remove Condition 2.

**Mr. Luke Fegan**

**Chartered Engineer** BA BAI HDip FSP MA MSc FIRE ENG CEng FIEI

*Consultant / Inspector*

Date : 31<sup>st</sup> May 2024