



An
Bord
Pleanála

FSC Report

ABP 305047-19

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

Appeal to a Condition attached to a
Granted Fire Safety Certificate

Development Description

Fire Safety Certificate for the
construction of a six-storey building
including a basement

An Bord Pleanála appeal ref number:

305047-19

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

FSC/DR/359/19

Appellant & Agent:

Oakmount, 55 Percy Place,
Ballsbridge, Dublin 4 (Appellant)
Goldsmith Engineering Ltd, (Agent)

Building Control Authority:

Dun Laoghaire-Rathdown County
Council

Date of Site Inspection

Not Applicable

Inspector/ Board Consultant:

Eamon O'Boyle, Eamon O'Boyle and
Associates

Appendices

Not Applicable.

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1.0 Introduction

- 1.1.1. A Fire Safety Certificate application was received by the Building Control Authority (Dun Laoghaire-Rathdown County Council) on the 26th February 2019. The application sought to demonstrate compliance with Part B of the Second Schedule of the Building Regulations (S.I. 497: 1997). The application is concerned with the construction of a new six storey building, including a basement' The building will comprise 48 apartments with four offices located at the ground floor. The building will be located at Deer Park Road, Mount Marion, Sandyford County Dublin.
- 1.1.2. The appeal relates to a condition attached to the grant of the Fire Safety Certificate by the Building Control Authority. The reason cited for the condition was “to demonstrate compliance with Part B of the Second Schedule of the Building Regulations 1997 – 2006”. Condition 3 states “All lift doors (except at basement and the topmost level) are to be protected by a smoke curtain. The cause and effect strategy for the smoke curtain at ground floor level is to be such that there is an appropriate time delay to activation of the curtain at this level only, to allow for such time for the lifts to return to this level and occupants to exit”

2.0 Information Considered

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

No.	Date	Description
1	26 Feb 19	Fire Safety Certificate Lodged
2	25 Apr 19	Extension of time email
3	24 May 19	Extension of time email
4	27 Jun 19	Extension of time email
5	9 Jul 19	Granted Fire Safety Certificate
6	2 Aug 19	Application for appeal from Goldsmith Engineering
7	13 Aug 19	Response from Building Control Authority to ABP including Fire Officer's report

The following drawings were also furnished for consideration:

Drawing Number	Revision	Title	Scale
FSC/18C882/097	0	Site location map	1:500 @ A1
FSC/18C882/098	0	Site plan	1:200 A1
FSC/18C882/099	0	Basement floor plan	1:100 @ A1
FSC/18C882/100	0	Ground floor plan	1:100 @ A1
FSC/18C882/100A	0	Dry riser inlet/outlet locations	1:100 @ A1
FSC/18C882/101	0	First floor plan	1:100 @ A1
FSC/18C882/102	0	Second floor plan	1:100 @ A1
FSC/18C882/103	0	Third floor plan	1:100 @ A1
FSC/18C882/104	0	Fourth floor plan	1:100 @ A1
FSC/18C882/105	0	Fifth floor plan	1:100 @ A1
FSC/18C882/106	0	Roof plan	1:100 @ A1
FSC/18C882/201	0	East/North Elevation	1:100 @ A1
FSC/18C882/202	0	South/West Elevation	1:100 @ A1
FSC/18C882/301	0	Long Sections	1:100 @ A1
FSC/18C882/302	0	Short Sections	1:100 @ A1

3.0 Relevant History/Cases

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

4.0 Appellant's Case

The appellants grounds for appeal to Condition 3 of the Granted Fire Safety Certificate states that the works include the construction of a new 6 storey over basement apartment building with ground floor offices at Deer Park Road, Mount Merrion. The works include construction of 48 apartments in total; 10 apartments and four office units at ground floor level, the 1st and 2nd floor contain 14

apartments each. The 3rd floor contains 5 apartments, the 4th floor contains 4 apartments and the 5th floor contains one Penthouse apartment.

The appellant accepts that clause 1.4.9.2 of TGD B applies, the Clause states that lifts should not continue to basement level if served by only one escape stairs. The appellant asserts that TGD B (sub-section 1.4) does not take into account that flats have far greater protection to stairs and lifts than any other buildings due to the requirements of BS 5588 part 1. In this application additional measures have been proposed as follows:

1. A double lobby at basement will be installed, which will also have permanent ventilation of 0.4m² in the outer lobby directly to outside.
2. The inner lobby at basement level will have a full mechanical smoke extract system installed to protect against a smoke spread. A Full CFD report has been produced to show the performance of the mechanical system
3. The basement carpark will have its own dedicated natural cross ventilation system including permanent natural openings and jet fans which will limit smoke spread into the lobbies.
4. A smoke curtain with smoke seal properties is to be installed at the basement level lift. It is to activate immediately on local detection or from the fire alarm input. This will prevent smoke spread to the floors above via the lift shaft.

The appellant is of the view that the arrangement where lifts terminate at basement level is normal throughout Ireland and is acceptable subject to there being adequate protection from the spread of smoke. In the case under consideration the basement lift area is protected by permanent ventilation of the outer lobby, mechanical smoke ventilation and fire curtains in the basement inner lobby. The passive measure which include a double lobby reduce the likelihood of smoke ingress into the lift shaft.

The appellant also raises safety concerns about the installation of smoke curtains at ground floor level as the fire strategy envisages the lift returning to ground floor in an emergency – the installation of a smoke curtain could impede persons escaping from a lift returning to the ground floor.

5.0 Building Control Authority Case

- 5.1.1. The Building Control Authority responded to ABP on the 23rd August 2019 with their file on the application together with a commentary on their assessment and the necessity to attach Condition 3 to the Granted Fire Safety Certificate.
- 5.1.2. The Building Control Authority sets out its observations by reference to the points made in TGD B clause 1.4.9.2 in respect of lifts. The Building Control Authority is of the view that the proposed arrangement envisages lifts discharging directly into corridors containing sleeping accommodation the installation of smoke curtains would provide protection from smoke leakage through the lift shaft. The Building Control Authority raised concerns as to the ability of lift doors seals to prevent smoke spread. The Building Control Authority asserts that normally lifts are within the stair core when smoke reaches the common corridor it must pass at least two doors thereby reducing risk of smoke spread significantly. The purpose of the smoke curtains is to reduce smoke spread via the lift shaft.

The Building Control Authority quotes Clause 3.2.7 of TGD B which requires “*any stairway or other shaft passing directly from one compartment to another should be enclosed so as to delay or prevent the spread of fire between different compartments*”. The Building Control Authority also quotes from clause 3.2.7.1 which requires that a protected shaft “*forms a complete barrier between the different compartments which the shaft connects*”

The Building Control Authority is of the view that the stair and lift cores discharge at basement level, this configuration was only permitted due to the submission made by Goldsmith Engineering on 2nd August 2019.

The Building Control Authority did not accept the safety concerns raised by Goldsmith Engineering as people are advised not to use lifts in an emergency hence there is a low risk of a lift being occupied with persons and in any event the design and factor of safety employed would provide adequate protection.

6.0 Assessment

6.1.1. Details lodged with application

6.1.2. 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.

6.1.3. Content of Assessment

6.1.4. In making the assessment it is necessary to only examine the degree of compliance with the Building Regulations B1 and B3 as there is no implication for any other Building Regulation (i.e. Regulations B2, B4 or B5) from what has been granted by the Building Control Authority. The basis of our assessment is confined to the provisions of Technical Guidance Document B 2006 and BS 5588 part 1.

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

6.1.6. Having considered the case made by the appellant and the commentary of the Building Control Authority I consider that the Building Control Authority did not give adequate weight to the fact that all apartments approach the lift corridor via a protected corridor within the apartments which are protected by 30 minute fire resistance of doors and walls where relevant. Our consideration is also based upon the following:

- The submission made by Goldsmith Engineering in respect of four additional measures of the 2nd August which is accepted by the Building Control Authority
- The level of protection offered by the protected corridors with each apartment
- The level of smoke protection provided by the measures proposed by Goldsmith Engineering at basement level
- The smoke protection measures within each lift corridor

7.0 Conclusion / Recommendation

7.1. My overall conclusion in this appeal is the Condition No. 3 should be removed and replaced with

“The building at basement level should be provided with.

- 1. A double lobby at basement be installed, which will have permanent ventilation of 0.4m² in the outer lobby directly to outside.*
- 2. The inner lobby at basement level to have a full mechanical smoke extract system installed to protect against smoke spread. A comprehensive CFD report to be produced to demonstrate the performance of the mechanical smoke extract system*
- 3. The basement carpark to have its own dedicated natural cross ventilation system including permanent natural openings and jet fans which will limit smoke spread into the lobbies.*
- 4. A smoke curtain with smoke seal properties is to be installed at the basement level lift. This smoke curtain will activate immediately on local detection or from the fire alarm input. This will prevent smoke spread to the floors above via the lift shaft.*

Reason; *To comply with the provision of Part B1 of the Second Schedule to the Building Regulations, 1997 to 2017.*

8.0 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 Building Control Authority and the Appellant and to the report and recommendations of the reporting inspector and in particular the issues raised by the Building Control Authority , the Board is satisfied that it has been fully demonstrated that the condition should remain.



Eamon O'Boyle

Chartered Engineer

Director

Eamon O'Boyle & Associates