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Report 3397

An Bord Pleanála Appeal regarding the attachment of Conditions by Dun Laoghaire-Rathdown County Council to grant of Fire Safety Certificate for proposed three storey live/work building comprising a single storey office located on the ground floor and a two storey maisonette located on the first and second floor at Monkstown Farm, Monkstown, Co. Dublin.

Client: An Bord Pleanála,
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BUILDING CONTROL ACT, 1990 – APPEAL

**FIRE SAFETY CERTIFICATE APPLICATION
FOR PROPOSED CONSTRUCTION OF A THREE STOREY LIVE/WORK BUILDING
COMPRISING A SINGLE STOREY OFFICE LOCATED ON THE GROUND FLOOR AND A
TWO STOREY MAISONETTE LOCATED ON THE FIRST AND SECOND FLOOR AT
BLOCK A, MONKSTOWN FARM, CO. DUBLIN**

**APPEAL AGAINST THE ATTACHMENT OF CONDITION NO. 1 and CONDITION NO. 8 TO
FIRE SAFETY CERTIFICATE (REF. 17/8019/7DAY) ON 20th JULY 2017**

AN BORD PLEANÁLA APPEAL REFERENCE 06D.FS0569

Local Authority: Dun Laoghaire-Rathdown County Council
Appellant: Mr. Stephen Rooney c/o Magahy Broderick Associates

RECOMMENDATION

In my opinion, the Board may rely on Article 40(2) of the Building Control Regulations and consider the subject appeal on the basis of Conditions only. It is recommended that this appeal be upheld. Subject Conditions No. 1 and No. 8 as attached to the Fire Safety Certificate granted by Dun Laoghaire-Rathdown County Council (under Reference 17/8019/7DAY) on 20th July 2017 should be removed and replaced with the following Conditions:-

Condition No. 1

The live/work building shall be occupied by a single household. The ground floor office shall not be subject of a separate tenancy, ownership or occupation to the residential levels overhead.

Reason:

To comply with the provisions of Part B1 of the Second Schedule to the Building Regulations 1997-2017.

Condition No. 8

The building shall be fitted throughout with a Type LD1 (Grade A) automatic fire detection and alarm system designed, installed and maintained in accordance with BS 5839:Part 6:2013.

Reason:

To comply with the provisions of Part B1 of the Second Schedule to the Building Regulations 1997-2017.

The remaining 6 no. Conditions (Conditions No.'s 2, 3, 4, 5, 6 and 7) attached to the granted Fire Safety Certificate are not subject of this appeal and should remain. The granted Fire Safety Certificate should therefore remain subject of 8 no. Conditions.

Dr. Raymond J Connolly

BE, PhD, CEng, MIEI, MIFireE, MSFPE

CONTENTS

	Page No.
1. Relevant information	4
2. Background	5
3. Reprise of appeal as presented	6
4. Consideration	8
5. Conclusion	10

1. RELEVANT INFORMATION

- i. Application for Fire Safety Certificate by Mr. Stephen Rooney to Dun Laoghaire-Rathdown County Council dated 25th January 2017.
- ii. Fire Safety Certificate (17/8019/7DAY) granted by Dun Laoghaire-Rathdown County Council issued on 20th July 2017 (subject of 8 no. Conditions).
- iii. Compliance Report 16083 (dated January 2017) by Magahy Broderick Associates and associated drawings.
- iv. Letter of appeal from Magahy Broderick Associates on behalf of Mr. Stephen Rooney to An Bord Pleanála dated 3rd August 2017.
- v. Letter sent by Dun Laoghaire-Rathdown County Council to An Bord Pleanála dated 24th August 2017 outlining observations/comments by Fire Prevention Officer.
- vi. Letter from Magahy Broderick Associates on behalf of Mr. Stephen Rooney to An Bord Pleanála dated 9th October 2017.

2. BACKGROUND

Magahy Broderick Associates on behalf of Mr. Stephen Rooney made an application to Dun Laoghaire-Rathdown County Council for a Fire Safety Certificate for construction of a new live/work unit comprising ground floor office with two storey maisonette overhead at Block A, Monkstown Farm (former location of Monkstown Inn), Monkstown, Co. Dublin. The Fire Safety Certificate was granted by Dun Laoghaire-Rathdown County Council (under Reference 17/8019/7DAY) on 20th July 2017 subject of 8 no. Conditions including *inter-alia*:-

Condition No. 1

Maisonettes that have a floor level that is situated higher than 4.5 metres above ground level or access level shall have:

- (a) *An alternative exit from any habitable room that is not on the entrance level of the maisonette (See Figure 2 BS 9991:2015), or*
- (b) *A protected stairway enclosure serving all habitable rooms and on alternative exit from every floor level other than the entrance level (see Figure 3, BS 9991:2015), or*
- (c) *A protected stairway enclosure and an LD1 fire detection and fire alarm system in accordance with IS:3218:2013, if no floor is more than 7.5 metres above or below the level of the entrance of the maisonette; and*
- (d) *An AWFSS⁽¹⁾ (see 11.2, Table 2, BS 9991:2015).*

Furthermore the single stair shall comply with section 30.2, figure 34 and section 45 (BS 9991:2015). Fire doors shall comply with Table 12 wherein fire doors shall be FD30S and FD30 as applicable (BS 9991:2015) and there shall be an AOV, i.e. an AOV shall be installed at top of the stairs as per section 14.2.2.4 (BS 9991:2015).

There shall be no connection between the office and the flat/apartment, i.e. they shall both have completely separate and independent means of ingress and egress.

(1) AWFSS = automatic water fire suppression system

(2) AOV = automatic opening vent

Reason:

To comply with the provisions of Part B1 of the Second Schedule to the Building Regulations, 1997 to 2017.

Condition No. 8

The system in the common areas shall be L2/L3X fire detection and alarm system complete with associated manual call points; it shall be provided to cover the common areas to the stairs and the stair enclosure and the office. It shall also have an interlinked heat detector located inside the lobby of the apartment in the premises and it shall be designed, installed and maintained in accordance with BS 5839:Part 6:2013 and IS 3218:2013 as applicable and it shall achieve 75 decibels at the bedheads (ideally sounder located in close proximity to bedhead).

Reason:

To comply with the provisions of Part B1 of the Second Schedule to the Building Regulations, 1997 to 2017.

On 3rd August 2017, Magahy Broderick Associates on behalf of Mr. Stephen Rooney appealed to An Bord Pleanála against the attachment of these Condition (Condition No. 1 and Condition No. 8) to the Fire Safety Certificate. The residual Conditions (Conditions No.'s 2, 3, 4, 5, 6 and 7) are not subject of the current appeal.

3. REPRISE OF APPEAL (AS PRESENTED)

The subject works comprise the construction of a new live/work building comprising a ground floor office and a two storey residential maisonette overhead. The residential levels are to be accessed by a protected stairway shared with the office at entry level. The building is in single use and is to be occupied by .

Condition No. 1

The appellant argues that Condition No. 1 is written in general terms for application to maisonettes and does not relate to specific application to hand. The appellant believes the Condition to be ambiguous and in excess of the requirements of both BS 5588:Part 1 and BS 9991:2015. The appellant suggests that a maisonette accessed from open air at ground level (as is the case in this instance) should be designed as dwellinghouse, so neither an AWFSS nor an AOV should be required.

The live/work unit is to be occupied as a single party or family. Accordingly there is no necessity to "block up" the connection between the office and the stairwell. The appellant suggests that any future change to the single tenancy arrangement for the living/office parts of the building would require a Revised Fire Safety Certificate.

The Fire Authority traces the evolution of guidance from BS 5588:Part 1:1990 through to its replacement BS9991:2015 noting in particular the changed advice regarding flats over more than one storey, i.e. a maisonettes or duplex/triplex units. In the relevant Clause 10.4(b)(2) of BS 5588:Part 1, it is advised that the habitable rooms at the upper level(s) should be accessed from a protected stairway and that there should be an alternative exit from the flat at the upper level(s), i.e. a second exit from the flat on the level other than the entrance level.

The Fire Authority take the view that the change in guidance between the original Clause 10.4(b)(2) of BS 5588:Part 1:1990 and its successor Clause 9.5.2(c) of BS 9991 with regard to omitting the second exit from the flat is subject of the compensatory effect of the inclusion of Type LD1 automatic fire detection as opposed to Type LD2. In the context of BS 5839:Part 6, this enhancement is manifest as the increased requirement to provide automatic fire detection in all bedrooms. In Ireland, IS3218 requires detection within bedrooms in both Type LD1 and LD2 systems and accordingly the Fire Authority suggests that the reduction in escape provision allowed by BS9991 is not in the Irish context compensated for by any improved extent of automatic fire detection. The Fire Authority see this as an "unacceptable lowering of standards" in a sector of the building industry that they have highlighted as being found to be deficient in fire safety standards in a number of instances.

The Fire Authority hold the view that the appropriate design solution to permit omission of the secondary (upper level) exit is a combination of a protected stairway, Type LD1 automatic fire detection and an automatic water fire suppression system (AWFSS).

The appellant subsequently confirmed in his letter of 9th October 2017 to The Board that "*the three storey building is a live/work unit occupied by the one owner*". The appellant refers to Clause 10.2 of BS 9991:2011 in support of the proposed design of the maisonette accessed directly from fresh air at ground floor, i.e. similarly to the equivalent 3 storey dwellinghouse.

Condition No. 8

The appellant argues that the requirement to install a Type L2/L3X fire detection and alarm system is not called for in the case of a live/work unit occupied by a single party of [*sic*] family.

The Fire Authority state that the design of the office is to BS 5588:Part 11 and that the Authority "felt" that the office would not be ancillary to the residential usage but would be a different tenancy, being originally described by the applicant as a two storey maisonette over a single storey office unit. The Fire Authority states that BS 9991:2015 requires an AOV to a single stair building.

4. CONSIDERATION

The appeal may be considered as presented and no new issues arise as would demand a *de novo* consideration.

The Fire Authority take the view that the change in guidance between the original Clause 10.4(b)(2) of BS 5588:Part 1:1990 and its successor Clause 9.5.2(c) of BS 9991 with regard to omitting the second exit from the flat is subject of the compensatory effect of the inclusion of Type LD1 automatic fire detection as opposed to Type LD2, which in effect represents an increased requirement to provide automatic fire detection in all rooms. In Ireland, the different approach between IS3218 and BS 5839:Part 6 means that the new inclusion of reference to Type LD1 detection does not deliver any improvement between the two design approaches. The Fire Authority see this as an "unacceptable lowering of standards". In fact, the enhanced level of detection associated with Type LD2 in Ireland could also be taken to mean that the original BS 5588:Part 1 compliant designs were in fact being "over-engineered" in Ireland relative to their UK counterparts. In any event what is now clear is that the requirements of Clause 9.5.2(c) of BS 9991:2015 would be equally met by inclusion of a Type LD1 system to either BS5839:Part 6 or IS3218. Whatever disparities may have existed between UK and Irish practice prior to 2015 (as a result of different product standards in the specification of fire detection and alarm system), there is no basis for retention of such disparities going forward.

The Fire Authority have not argued that application of BS9991:2015 is not a valid means of demonstrating compliance with Part B1 to the Building Regulations in Ireland. What they seem to be arguing is that the changes introduced between BS5588:Part 1 and BS9991 do not take any account for the Irish situation and therefore do not (in the Irish context) deliver their intended effect in terms of compensation for a reduced standard. This argument is entirely predicated on the subjective concept of trade-off, where omission of one fire precaution is required to be compensated for by inclusion of an alternative one. Another and more objective design approach might be that a given suite of fire precautions in combination is determined as delivering the necessary level of safety and once all the necessary precautions are present then adequate safety is achieved. Clause 9.5.2(c) of BS9991 makes it objectively clear that a combination of a protected stairway and Type LD1 detection will permit a duplex flat to comply with Part B1. The appellant is proposing to include such a combination of measures in this case and this should be the end of the matter. The fact that prior to publication of BS9991 such an approach would not have been acceptable is neither here nor there, as similar arguments could be made regarding the Fire Authority's own design solution, i.e. additional automatic fire suppression. Rather than representing the design proposals as "lowering the standard of fire safety to an unacceptable degree", it could equally be argued that the pre-2015 Irish designs including both a *de facto* Type LD1 fire detection system and a second exit were an unintended consequence of lack of co-ordination between those drafting British and Irish Standards. In simple terms, if BS5588:Part 1 had required Type LD1 as a pre-requisite to allowing a duplex flat with exits at both levels then it would

have made same explicit in Clause 10.4. The publication of IS3218 in 2013 represented a significant departure in terms of fire detection standards from its 1987 predecessor and, by association, BS5588:Part 1 compliant designs for duplex flats between 1990 and 2013. It is noted that Technical Guidance Document B published in 2006 refers to Type LD2 systems in terms of BS5839:Part 6, i.e. within the circulation route and high risk spaces only not including bedrooms. In such a context, it could be argued that the publication of IS3218 in 2013 introduced a higher set of standards for fire detection in dwellings than included for in Technical Guidance Document B.

The Fire Authority has imposed a design solution that in their view is sufficient to permit omission of the secondary (upper level) exit. Their design solution comprises a combination of a protected stairway, Type L2/L3X automatic fire detection and an automatic water fire suppression system. There is no explicit basis in BS 9991 for this locally determined bespoke solution given that it is in excess of the code's own recommended package of fire precautions for the subject duplex scenario. It is noted that the inclusion of automatic fire suppression to permit inner room bedrooms in Clause 9.7 of BS 9991 is restricted to single level flats with certain characteristics. It is not in keeping with the closely aligned UK and Irish practices in fire safety design for a duplex flat scenario, that is specifically addressed in Clause 9.5.2(c) of BS9991, to be sufficiently different in Ireland as to require its design in such a significantly different manner. Moreover, the difference in approach between jurisdictions has only arisen post the publication of IS3217 in 2013 and without the benefit of publication of a revision of Technical Guidance Document B in the interim as might help to clarify issues such as these.

On balance it is concluded that the design solution imposed by the Fire Authority is not sufficiently well founded on published fire safety guidance nor is it proportionate to the problem as perceived by the Fire Authority. The building is in single occupation as a live/work unit and its compliance with Part B1 to the Building Regulations is therefore readily justified by comparison with the equivalent three storey dwellinghouse designed to either Clause 1.5.3(ii) of Technical Guidance Document B or Clause 6.4(a) of BS 9991:2015.

Condition No. 8

The appellant argues that the requirement to install a Type L2/L3X fire detection and alarm system is not called for in the case of a live/work unit "*occupied by the one owner*". The Fire Authority has allowed for more than one tenancy within the building. This issue is best resolved by means of a Condition restricting the building to occupation by a single family unit.

5. CONCLUSION

It is recommended that this appeal be upheld but that the subject Conditions should be amended rather than simply removed. Subject Conditions No. 1 and No. 8 as attached to the Fire Safety Certificate granted by Dun Laoghaire-Rathdown County Council (under Reference 17/8019/7DAY) on 20th July 2017 should be removed and replaced with the following Conditions:-

Condition No. 1

The live/work building shall be occupied by a single household. The ground floor office shall not be subject of a separate tenancy, ownership or occupation to the residential levels overhead.

Reason:

To comply with the provisions of Part B1 of the Second Schedule to the Building Regulations, 1997 to 2017.

Condition No. 8

The building shall be fitted throughout with a Type LD1 (Grade A) automatic fire detection and alarm system designed, installed and maintained in accordance with BS 5839:Part 6:2013.

Reason:

To comply with the provisions of Part B1 of the Second Schedule to the Building Regulations, 1997 to 2017.

The remaining 6 no. Conditions (Conditions No.'s 2, 3, 4, 5, 6 and 7) attached to the granted Fire Safety Certificate are not subject of this appeal and should remain.

The granted Fire Safety Certificate should therefore remain subject of 8 no. Conditions.

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