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Chartered Engineers
Professionals in Fire and Safety

Report 3676

**An Bord Pleanála Appeal regarding the attachment of
Conditions No.'s 1 & 2 by Galway City Council to grant of
Revised Fire Safety Certificate for material alterations to
previously approved Fire Safety Certificate (FS 14/19) for the construction
of two office blocks over a basement car park at The Docks, Galway**

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BUILDING CONTROL ACT, 1990 to 2014 – APPEAL

**REVISED FIRE SAFETY CERTIFICATE APPLICATION FOR
MATERIAL ALTERATIONS TO THE PREVIOUSLY APPROVED FIRE SAFETY
CERTIFICATE (FS 14/19) FOR THE CONSTRUCTION OF TWO OFFICE BLOCKS OVER
A BASEMENT CAR PARK AT THE DOCKS, GALWAY**

**APPEAL AGAINST THE ATTACHMENT OF CONDITION'S NO. 1 and 2
TO REVISED FIRE SAFETY CERTIFICATE (REG. REF. FS/161/19) ON 24th MAY 2019**

AN BORD PLEANÁLA APPEAL REFERENCE 306643-20

Local Authority: Galway City Council

Appellant: Bonham Dock Limited c/o Ryan & Associates

RECOMMENDATION

In my opinion, the Board may rely on Article 40(2) of the Building Control Regulations to consider the subject appeal on the basis of Conditions only. In order to clarify the various issues subject of the appeal, it is recommended that the subject Conditions No.'s 1 and 2 be redrafted as follows:-

Condition No. 1

The foyer/reception at ground floor level in Block C shall not form part of the fire-fighting shaft. The fire-fighting shaft shall be configured in accordance with the principles contained in Figure 21(a) of BS 9999:2017 including specifically the provision of a direct connection between the fire-fighting stairway and fire-fighting lift and also the removal of direct connection between the foyer/reception and the passageway from the fire-fighting stairway.

Reason:

In order to comply with B1 (means of escape in case of fire) and B5 (access facilities for the Fire Service) to the Building Regulations, 1997 to 2006 and subsequent amendments.

Condition No.2

All external escape stairs including their disabled refuges shall be provided throughout with weather protection.

Reason:

In order to comply with B1 (means of escape in case of fire) to the Building Regulations, 1997 to 2006 and subsequent amendments.

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

Dr. Raymond J Connolly

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1. RELEVANT INFORMATION

- i. Application for a Revised Fire Safety Certificate by Bonham Dock Limited to Galway City Council dated 21st October 2019.
- ii. Compliance Report (191195) by Ryan & Associates Ltd. and associated drawings dated 17th November 2019.
- iii. Revised Fire Safety Certificate (FS 161/19) granted by Galway City Council dated 28th January 2020 (subject of 5 no. Conditions).
- iv. Letter of appeal from Ryan & Associates on behalf of Bonham Dock Limited to An Bord Pleanála dated 13th February 2020.
- v. Report of Senior Assistant Chief Fire Officer, Galway Fire Service, dated 13th March 2020.
- vi. Letter of response from Ryan & Associates to An Bord Pleanála dated 9th April 2020 regarding Fire Officer's Report.
- vii. Galway City Council Case History File FS 14/19.

2. BACKGROUND

Ryan & Associates acting as agent for Bonham Dock Limited made an application to Galway City Council for material alterations to the previously approved Fire Safety Certificate (FS 14/19) for the construction of two office blocks over a basement car park at The Docks, Galway. The Revised Fire Safety Certificate was granted by Galway City Council (under Reference FS 161/19) on 28th January 2020 subject to 5 no. Conditions including *inter-alia*:-

Condition No. 1

In Block C at ground floor the layout of the fire-fighting shaft shall be as indicated in figure 20(b) of BS 9999:2017 with a protected lobby between the entrance lobby and the fire-fighting shaft.

Reason:

In order to comply with B1 (means of escape in case of fire) and B5 (access facilities for the Fire Service) to the Building Regulations, 1997 to 2006 and subsequent amendments.

Condition No.2

In Block C at first floor level, escape shall be provided to all external stairs on the north elevation as proposed on all floors above and therefore providing three alternative means of escape for occupants.

Reason:

In order to comply with B1 (means of escape in case of fire) to the Building Regulations, 1997 to 2006 and subsequent amendments.

On 13th February 2020, Ryan & Associates acting as agent for Bonham Dock Limited appealed to An Bord Pleanála against the attachment of these Conditions (Conditions No.'s 1 and 2) to the Revised Fire Safety Certificate. The residual Conditions (Conditions No.'s 3, 4 and 5) are not subject of the current appeal.

3. REPRISE OF APPEAL (AS PRESENTED)

The subject works comprise the material alteration of a previously approved office development and specifically seeks to mitigate 3 no. Conditions as applied to the previously granted “parent” Fire Safety Certificate (FS 14/19) comprising:-

- (i) Proposed omission of 90 minutes fire-resisting steelwork to external stairs and balconies.
- (ii) Proposed omission of smoke protected fire-fighting lobby at ground floor.
- (iii) Proposed omission of external escape from first floor and reliance on 2 no. escape routes as opposed to the 3 no. routes required under the relevant Condition.

In summary, the Revised Fire Safety Certificate (FS 161/19) subject of this appeal is of itself a device to remove or otherwise modify the Conditions attached to the earlier parent Fire Safety Certificate (FS 14/19). However, the Fire Authority refused to alter its approach to two of the 3 no. Conditions being sought to be amended from the parent Fire Safety Certificate approval and accordingly those two conditions effectively remain by means of their attachment, albeit subject of minor modification, as Conditions No.'s 1 and 2 to the Revised Fire Safety Certificate subject of this appeal. A further 3 no. Conditions were also attached to the current application but same are not subject of this appeal and do not require consideration *de novo*.

Condition No. 1

In Block C at ground floor the layout of the fire-fighting shaft shall be as indicated in figure 20(b) of BS 9999:2017 with a protected lobby between the entrance lobby and the fire-fighting shaft.

Reason:

In order to comply with B1 (means of escape in case of fire) and B5 (access facilities for the Fire Service) to the Building Regulations, 1997 to 2006 and subsequent amendments.

The appellant proposes that the ground floor combined lift and fire-fighting lobby does not compromise the means of escape design and that specifically:-

- (i) The fire doors between the foyer and the fire-fighting lift lobby are proposed as an additional measure to protect the upper floor levels.
- (ii) The fire-fighting lift lobby will be sterile of combustible materials.

(iii) The foyer will act as a lobby to the stairs and will not compromise the means of escape.

The appellant proposes that the ground floor combined lift and fire-fighting lobby does not compromise the access and facilities for the Fire Service and that specifically:-

(i) The design complies with Section 7.1.3 of BS 5588:Part 5.

(ii) It is not necessary for persons escaping down the stairs to access the fire-fighting lift lobby.

(iii) The fire-fighting lobby is suitably sized for Fire Service use.

The Fire Authority records its view that the proposed design at ground floor does not accord with Figure 20(b) of BS 9999:2015 and specifically that the foyer is inadequately separated from the fire-fighting stair by a single E60S_a fire doorset. The Fire Authority points out that the foyer will include furniture and other combustible material and should not be regarded as part of the fire-fighting shaft.

The appellant subsequently contradicts the Fire Authority's view and states specifically that "all materials in the foyer will be non-combustible in nature". The appellant also points out that the proposed design mitigates against circulation through the stairs and that the foyer serves as a fire control centre.

Condition No.2

In Block C at first floor level, escape shall be provided to all external stairs on the north elevation as proposed on all floors above and therefore providing three alternative means of escape for occupants.

Reason:

In order to comply with B1 (means of escape in case of fire) to the Building Regulations, 1997 to 2006 and subsequent amendments.

The appellant proposes that the means of escape design of the first floor is fully compliant with Part B1 and that specifically:-

(i) The travel distances, occupant numbers, occupancy type (A2) and proposed 2 no. exit provisions are adequate without requiring a third escape route.

(ii) The building is to be fitted with a Fire Control Centre with a fire warden.

- (iii) The building is fitted with Type L1XM automatic fire detection and alarm system throughout, which is an enhancement on the minimum Type M system allowed under BS 9999.
- (iv) The building will have an effective fire safety management system.
- (v) The building will have a phased evacuation system.
- (vi) All occupants will be awake and familiar with the premises and the escape routes and suited to “relatively quick” escape.

The Fire Authority observes that the building is to be evacuated on a phased basis and includes only one internal protected stairway with the second stairway being an external stair that is not weather protected and therefore less likely to be effective. The Fire Authority suggests that there is a likelihood of escape being coincident with fire-fighting access and therefore that it would be safer to include a second alternative escape route on the opposite side of the building.

The appellant subsequently confirms that both external stairways are to be weather protected above 6 metres height and fitted with trace heating.

4. CONSIDERATION

The appeal is being considered as presented and no new issues arise as demand *de novo* consideration.

Condition No. 1

In Block C at ground floor the layout of the fire-fighting shaft shall be as indicated in Figure 20(b) of BS 9999:2017 with a protected lobby between the entrance lobby and the fire-fighting shaft.

The building is proposed to be evacuated on a phased basis. The appellant undertakes in his application that in order to facilitate same that the internal stairway will have protected lobby access at all relevant levels (including ground floor).

BS 9999:2017 replicates long-standing fire safety guidance, including BS 5588:Part 5 and Technical Guidance Document B that every fire-fighting stairway and lift should be approached via a fire-fighting lobby.

Both of these design requirements are undermined by the proposed ground floor layout, wherein the foyer/reception area connects directly into both the fire-fighting stairway and the fire-fighting lift lobby. Furthermore, the fire-fighting lift is not accessible directly from fresh air or directly from the fire-fighting stairway and can only be accessed via the reception/foyer. Whilst the appellant varies his descriptions of the reception/foyer in his various submissions, his design intent is clear from his narrative regarding the reception/foyer being large enough to act “as a command post” and “the fire service control centre will be provided in the foyer adjacent to the fire-fighting lobby building [*sic*]” and most explicitly in his letter of appeal that “the foyer and lift lobby comprise the fire-fighting lobby”. It is concluded that the designer’s intent is for the reception/foyer to comprise part of the fire-fighting shaft and specifically that it be treated as a fire-fighting lobby.

There are clear conflicts arising from this design intention including that:-

- (i) The reception/foyer (80 m²) exceeds 20 m² in area and therefore is deemed excessively large to act as a fire-fighting lobby under BS 9999:2017 (Clause 20.2.5). The combination of the reception/foyer with the lift lobby further exacerbates this excessive size issue.
- (ii) This size restriction reflects a concern that larger lobbies would be more vulnerable to the presence of combustible materials. This concern, as expressed by the Fire Authority in the course of this appeal, was explicitly rejected by the appellant, who undertook in his letter of appeal that the reception/foyer would be a sterile space with no combustible materials present. This

undertaking is not only lacking in credibility (given the presence of automated turnstiles that presumably will require reception issued visitor's passes) but more importantly is an undertaking that cannot be relied upon into the longer term.

(iii) The Fire Control Centre is likely to contain combustible materials. It is noted that the Centre is not enclosed in 120 minutes fire-resisting construction as recommended in BS 9999.

It is noted that within the parent Fire Safety Certificate FS 14/19, the relevant Condition No. 6 requires that the door connecting the fire-fighting stair to the "fire-fighting lobby" be repositioned to be within the "fire-fighting smoke controlled lobby". There is a clear difference in the terminology being used by the appellant and the Fire Authority. The appellant's interpretation of the term "fire-fighting lobby" has been established clearly to mean the combined reception/foyer and lift lobby. The Fire Authority are clearly distinguishing between the lift lobby and the reception/foyer. The previous Condition No. 6 is requiring of an arrangement as recommended in Figures 20 and 21 of BS 9999 and the Fire Authority's submission to the Board in the course of the current appeal makes this explicit, i.e. "the foyer should not be regarded as part of the fire-fighting shaft".

The revised and more recent constraint issued by the Fire Authority (as attached by means of Condition No. 1 to FS 161/19) to address this same concern is now more ambiguous and potentially more onerous on the appellant. The difficulties include the use of the term "fire-fighting shaft" and the fact that Figure 20(b) of BS 9999 includes a direct connection between the fire-fighting stair and the fire-fighting lift (both sitting within a fire-fighting shaft). Given that the Fire Authority has expressed its clear understanding that the fire-fighting shaft should not include the foyer/reception, then the compliance with Condition No. 1 as currently drafted requires that:-

EITHER

A protected lobby be installed between the foyer/reception and the fire-fighting stair.

and

A second protected lobby be installed between the foyer/reception and the fire-fighting lift lobby (which must by definition be within the fire-fighting shaft).

OR

The fire-fighting stair and fire-fighting lift share a single protected lobby that is not the foyer/reception.

This latter option is the one previously presented as Condition No. 6 in FS 14/19 and the arrangement that unambiguously complies with guidance in Figure 21(a) BS 9999, which in fact most closely

resembles the appropriate requirements given that there is also a basement connection in the subject building.

The former route to delivering compliance with the subject Condition No. 1 to FS 161/19 could result in the entirely non-sensical arrangement of a “land-locked” protected lobby between the foyer/reception and the fire-fighting lift lobby. Whilst such an arrangement may be a literal interpretation of Condition No. 1, it does not yield a compliant design and clearly requires Fire Service personnel retreating from the fire-fighting lift to move through an unprotected space. The simple inclusion of a protected lobby between the foyer/reception and the fire-fighting stair does not address the absence of a physical connection between the fire-fighting lift and the fire-fighting stairway, as compliance with either Figure 20(b) or Figure 21(a) of BS 9999 would demand.

In conclusion, Condition No. 1 as drafted is not readily compatible with the building layout as currently proposed. The extent of changes to the building layout required to comply with the Condition are significant and ideally should have been made during the Revised Fire Safety Certification process allowing all parties comfort as to the correct interpretation of the relevant design guidance.

Whilst maintaining its intent, it is recommended that the existing Condition No. 1 needs to be clarified and for that reason it should be replaced with an alternative condition as follows:-

Condition No. 1

The foyer/reception at ground floor level in Block C shall not form part of the fire-fighting shaft. The fire-fighting shaft shall be configured in accordance with the principles contained in Figure 21(a) of BS 9999:2017 including specifically the provision of a direct connection between the fire-fighting stairway and fire-fighting lift and also the removal of direct connection between the foyer/reception and the passageway from the fire-fighting stairway.

Condition No.2

In Block C at first floor level, escape shall be provided to all external stairs on the north elevation as proposed on all floors above and therefore providing three alternative means of escape for occupants.

It is recognised that the use of phased evacuation in an office building of such modest size together with a reliance on a single internal stairway in Block C with alternative escape routes only available by means of external escape stairways is quite unusual. It is clear that the enhanced fire safety measure of providing lobby protection to all lifts and stairways in buildings that rely on phased evacuation reflects the potential risk that persons may be required to escape in the later stages of a fire event past a floor level that is potentially on fire. The proposed strategy relies on a single lobby protected stairway and a second external weather protected stair accessed directly from an office floor. There appears a clear disparity between the enhanced fire protection measures generally required of phased evacuation buildings and the inherently reduced standards of safety associated with reliance on external stairways. It is against such a background that the concerns of the Fire Authority should be considered. However, the appellant's contention that the design of the first floor level in Block C does not strictly require a third escape route so as to meet the minimum standards of Part B1 to the Building Regulations is correct.

It is concerning that the submission of the Fire Authority in respect of the appeal of Condition No. 2 specifically makes reference to the absence of weather protection to the external stairways and in such a context the Fire Authority expresses legitimate concerns about the efficacy of external escape routes as might be impaired by inclement weather. It is quite reasonable to surmise that high winds, driving rain, vertigo or absence of suitable outdoors clothing could delay or possibly even deter persons from using these external routes. The appellant, however, has stated to the Board in the same context that external stairways will be provided with weather protection including trace heating to all levels above 6 metres.

Condition No. 3 attached to FS 161/19 (but not subject of the current appeal) specifically requires trace heating to all external stairs and offers no relaxation to parts of stairs within 6 metres of ground level. This reflects the fact that there is no such relaxation permitted in BS 9999, wherein Clause 17.7[e] simply identifies a vertical extent of 6 metres as being the threshold beyond which external stairs qualify for the requirement that weather protection be provided throughout their height. It is not the case, as seems to be suggested by the appellant, that external stairs be partially weather protected at certain elevations. It makes little sense either to permit accumulation of snow on the lower levels of an otherwise trace heated stair nor indeed for persons escaping the building to transition from weather protected flights to open-sided flights when reaching the second floor.

It is clear that there has been confusion between both parties in the matter of weather protection to external stairs. It is therefore recommended that Fire Authority concerns regarding weather protection that underpins their attachment of Condition No. 2 be addressed by means of an alternative condition as follows:-

Condition No.2

All external escape stairs including their disabled refuges shall be provided throughout with weather protection.

5. CONCLUSION

In my opinion, the Board may rely on Article 40(2) of the Building Control Regulations to consider the subject appeal on the basis of Conditions only.

In respect of Condition No. 1, it is recommended that the appeal be rejected and that the intent of the Condition should remain. However, so as to avoid confusion that has become apparent in the course of the appeal, it is recommended that the condition be redrafted as follows:-

Condition No. 1

The foyer/reception at ground floor level in Block C shall not form part of the fire-fighting shaft. The fire-fighting shaft shall be configured in accordance with the principles contained in Figure 21(a) of BS 9999:2017 including specifically the provision of a direct connection between the fire-fighting stairway and fire-fighting lift and also the removal of direct connection between the foyer/reception and the passageway from the fire-fighting stairway.

Reason:

In order to comply with B1 (means of escape in case of fire) and B5 (access facilities for the Fire Service) to the Building Regulations, 1997 to 2006 and subsequent amendments.

In respect of Condition No. 2, it is recommended that the appeal should be upheld and the current condition should be set aside. Again, so as to avoid confusions that have become apparent in the course of the appeal, it is recommended that a replacement condition should be attached as follows:-

Condition No.2

All external escape stairs including their disabled refuges shall be provided throughout with weather protection.

Reason:

In order to comply with B1 (means of escape in case of fire) to the Building Regulations, 1997 to 2006 and subsequent amendments.

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

Dr. Raymond J Connolly

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