

**APARTMENT AND DUPLEX DEVELOPMENT,
NASHS BOREEN,
CORK.**

FIRE STRATEGY.

**Date: 12th August 2021.
Ref. No.: 4101/21.**

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1. DESCRIPTION OF DEVELOPMENT:

The proposed development consists of 3 Blocks of Apartments with Duplexes over and is located on Nashs Boreen in Cork City.

One of the Blocks contains 3 Apartments at ground floor level and 3 no. three storey Duplexes over.

The other 2 Blocks contain 4 Apartments and 4 Duplexes.

Due to the split level nature of the site, the ground floor Apartments and the Duplexes are each entered directly from open air.

There are no common escape routes associated with the various Blocks.

There are also a number of terraced style 3 storey dwellings proposed for the site.

Under the provisions of the Building Control Regulations, each Apartment/Duplex Block is subject to a separate Fire Safety Certificate.

The applications for the Fire Safety Certificates will be submitted to the Local Authority Fire Department and will be accompanied by fire safety compliance reports and fire safety compliance drawings.

The reports and drawings will demonstrate in detail how the building and the works being carried out will be made to comply with Part B (Fire) of the Building Regulations.

The following documents will be used to demonstrate this compliance;

- i) BS 5588: Part 1: 1990: Fire Safety in the Design, Construction and Use of Residential Buildings – Code of Practice.
- ii) Technical Guidance Document B – Fire (2006) (Reprint 2020) to the Irish Building Regulations 2006 - 2019.
- iii) BRE Report 187 2014: External Fire Spread: Building Separation and Boundary Distances.

The terrace style dwellings will not be subject to a Fire Safety Certificate.

2. MEANS OF ESCAPE IN CASE OF FIRE:

2.1 Internal Layout of Apartments:

The internal layout of each ground floor Apartment in each Block is such that each habitable room is accessed directly from an entrance hall.

The Apartments are located at ground floor level so it is not required to enclose the entrance halls in fire rated construction.

The Apartments are accessed directly from open air.

This is adequate to ensure compliance with BS 5588: Part 1: 1990, as required.

2.2 Internal Layout of Duplexes:

The internal layout of each Duplex is to be such that all habitable rooms are to be accessed directly from a protected internal stairs within each Duplex.

The stairs within each Duplex will be enclosed throughout its height in 30 minute fire rated construction with access to each room off the stairs by way of self-closing FD30 doors.

Each Duplex is accessed directly from open air such that there are no common escape routes associated with this building.

This is adequate to ensure compliance with BS 5588: Part 1: 1990.

2.3 Domestic Fire Alarm Systems:

Each Apartment and Duplex is to be provided with a domestic fire alarm system that is compliant with BS 5839: Part 6: 2019. The domestic systems will be Grade D type systems providing Type LD2 detection/alarm coverage.

There are no common escape routes associated with the various Blocks.

As a result the buildings are not required to be provided with a common fire detection and alarm system or an emergency lighting system.

3. INTERNAL FIRE SPREAD AND STRUCTURAL FIRE PROTECTION

The provisions for ensuring that Parts B2 and B3 of the Building Regulations are being complied with for the Apartment building are set out in the following paragraphs.

These are in accordance with the specifications set out under Section B2 and Section B3 of Technical Guidance Document B.

- i) All internal wall and ceiling linings throughout the development will consist of plasterboard/fireline board and plastered masonry. These will achieve a Class 0 rating which ensures compliance with Regulation B2 of the Building Regulations.
- ii) All elements of structure (other than those which solely support the roof covering) will be fire rated to 60 minutes.
The floors within each Duplex will be fire rated to 30 minutes.
- iii) Each individual Apartment and Duplex is to form a separate fire compartment. The walls and floors forming this fire compartmentation are to form compartment walls and floors.
- iv) All services that penetrate the designated fire barriers within the building will be fully firestopped in accordance with the specific criteria set out in Section 3.4 of Technical Guidance Document B.

4. EXTERNAL FIRE SPREAD:

Regulation B4 of the Building Regulations is concerned with ensuring that external fire spread will not occur from these buildings to each other or beyond the site boundaries.

The numbers and areas of windows and doors on the external walls of the building have been assessed to ensure they do not cause a risk of external fire spread beyond the site boundaries or from one residential building to another on the site.

The assessment has been carried out using the “Enclosing Rectangles” method set out in BRE Report 187: External Fire Spread: Building Separation and Boundary Distances.

Account has been taken of the extent of compartmentation proposed for the development and also the fireload associated with Residential usage.

The type of roof covering associated with the buildings will be chosen as necessary, to ensure it achieves at least an AC classification.

This will be achieved using concrete tile or slate construction.

Rooflights will be of glazed construction with a minimum thickness of glazing of at least 4mm.

5. ACCESS AND FACILITIES FOR THE FIRE SERVICE:

Regulation B5 of the Building Regulations is concerned with ensuring that the development is provided with adequate access and facilities for the Fire Service in order to deal with a fire incident.

The following is being provided for in order to ensure compliance with Regulation B5 is being achieved;

5.1 External Fire Hydrants:

The site is to be served by at least 2 no. external fire hydrants.

These will be strategically located on the site and will be compliant with the criteria set out in Section 5.1 and Diagram 30 of Technical Guidance Document B.

The hydrants will be fed directly from the Local Authority watermain that runs along Nashs Boreen.

5.2 Access for Fire Appliances:

The volume of each Block is such that it should be provided with at least 15% of the building perimeter for fire appliance access.

This criteria is being achieved as shown on site layout plan.

As the top floor height of each Block does not exceed 10m, it is not deemed necessary to provide for high reach type appliance access.

5.3 Personnel Access for Firefighting Purposes:

Personnel access to the building for the Fire Service will be adequately provided for by a combination of the normal means of escape from the building and the provisions for fire appliance access.

Details of these provisions are set out above.

