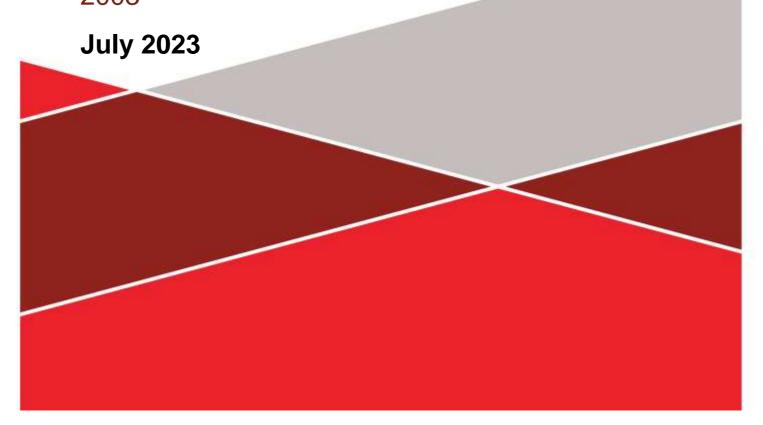




# Code of Practice for the Remediation of Fire Safety Defects

Guidance for Owners' Management Companies, Building Professionals and Local Authority Staff in the context of the Fire Services Acts 1981 and 2003



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#### 1.0 Introduction

This Code of Practice has been developed following the recommendations contained in the report titled "Defects in Apartments - Report of the Working Group to Examine Defects in Housing" published in July 2022.

The Working Group to Examine Defects in Housing, was established by the Minister for Housing, Local Government and Heritage in February 2021. It was tasked with delivering on the commitment in the Programme for Government to examine defects in housing, having regard to the recommendations of the Joint Oireachtas Committee on Housing report *Safe as Houses?* 

This Code of Practice has been published to:

- support the development of a reasonable and practicable approach to resolving fire safety defects;
- Ensure a consistent approach nationwide to remediation;
- Provide guidance to owners' management companies, building professionals and local authority building control / fire services, including guidance on interim safety measures, in the context of the Fire Services Acts 1981 & 2003.

The provisions contained in this Code of Practice (COP) are limited to, and apply specifically and only to purpose-built apartment buildings including duplexes, constructed between 1991 and 2013 in the context of the Fire Services Acts 1981 & 2003.

The provisions may also apply to any remedial works which are required to an area outside or adjacent to the apartments or duplexes, or to the common area of the apartments or duplexes in multi-use buildings, which are required to ensure the safety of the apartments or duplexes built within the same time period.

The report of the Working Group recommended that when developing a COP consideration is also given to the following existing publications:

- Code of Practice for Fire Safety Assessment of Premises and Buildings
- Framework for Enhancing Fire Safety in Dwellings where concerns arise
- Fire Safety Guide for Building Owners and Operators Guide for Persons having Control under Section 18(2) Fire Services Acts 1981 & 2003

Owner's Management Companies (OMC's) have responsibilities and obligations in relation to ownership and control of common areas, and fire safety in common areas of multi-unit developments.

These responsibilities and obligations arise under various pieces of legislation, in particular the Multi-Unit Developments Act 2011, and Section 18(2) the Fire Services Acts 1981 and 2003, under which OMCs would be considered "persons having control" of common areas.

Accordingly, OMCs will have a central role in the implementation of remedial works to apartments or duplex buildings. The provisions in this COP are based on this principle.

# 2.0 Scope

This COP is based on the principle of a whole-building approach in respect of the remediation of fire safety defects and the solutions being offered.

This COP is intended to provide guidance relating to the process for assessing and remediating defects and certifying works (to which this COP applies) to building professionals and local authority building control / Fire Authority staff in the context of the Fire Services Acts 1981 & 2003.

The issuing of a Certificate of Remediation of Fire Safety Defects on the completion of any remediation works does not absolve OMCs, as persons having control, of their responsibilities with respect to the ongoing management of apartment or duplexes buildings under Section 18(2) of the Fire Services Acts 1981 & 2003 (see Section 3). The recommendations of the report of the Working group to Examine defects in Housing set out in general the approach to resolving fire safety defects, and the areas that may be addressed in a code of practice. The relevant recommendations from the report of the Working Group are included in Appendix A.

In the interest of clarity, separate guidance in the context of structural safety and water ingress defects may be required and is outside the scope of this COP.

# 2.1 Interpretation

This COP is published by the Minister for Housing, Local Government and Heritage under Section 18(A) of the Fire Services Acts 1981 & 2003.

The legislation relating to fire safety in buildings in Ireland is contained in the Fire Services Acts 1981 and 2003 and the Building Control Act, (as amended) 1990. Regulations made under the Building Control Acts, set standards (including fire safety standards) for the construction of new buildings or certain works to existing buildings.

This COP is published to assist OMCs in discharging their statutory responsibilities under section 18(2) of the Fire Services Act, 1981 and 2003 in respect of purpose built apartment and duplex buildings constructed between 1991 and 2013.

Compliance with the provisions contained in this COP will demonstrate that a reasonable level of fire safety has been achieved in the remediation of fire safety defects in those apartments/duplexes.

The issuing of a Certificate of Remediation of fire safety defects in respect of remediation works, completed in accordance with the provisions of the COP, when signed by the competent professional and competent builder, will demonstrate that the defects discovered have been satisfactorily remediated.

When considering the provisions of this COP it should be noted that:

- Compliance with this COP does not confer immunity from any statutory requirement nor exempt a person from the need to ensure that all other relevant statutory requirements are being complied with.
- This COP is not a legal interpretation of, or a substitution for, the legislation and is non-exhaustive

# 3.0 Requirements under the Fire Services Acts 1981 and 2003

# 3.1 Section 18(2) of the Fire Services Acts 1981 and 2003

Section 18(2) sets out duties which are placed on the person(s) having control of premises to which Section 18 applies. An extract of the Fire Services Acts 1981 and 2003 is as follows:

## Section 18(2)

"It shall be the duty of every person having control over premises to which this section applies to –

- a) take all reasonable measures to guard against the outbreak of fire on such premises;
- **b)** provide reasonable fire safety measures for such premises and prepare and provide appropriate fire safety procedures for ensuring the safety of persons on such premises;
- c) ensure that the fire safety measures and procedures referred to in paragraph (b) are applied at all times; and
- d) ensure, as far as is reasonably practicable, the safety of persons on the premises in the event of an outbreak of fire whether such outbreak has occurred or not"

# 3.2 Person Having Control

The person having control of premises has statutory fire safety responsibilities under Section 18(2) of the Fire Services Acts 1981 and 2003.

The person having control may be an individual person, a number of persons or an organisation such as a Housing Authority, Approved Housing Authority etc. In the case of apartment and duplex buildings, OMCs would be considered "persons having control" of common areas. See "Fire Safety Guide for Building Owners and Operators" Guide for persons having control under Section 18(2) of the Fire Services Acts 1981 and 2003.

The person having control is legally required to provide a property / premises that is safe, and to ensure all reasonable fire safety measures and procedures are in place. This includes structural fire precautions, such as adequate fire resistance of elements of structure, protection of escape routes and compartmentation appropriate to the building. Additionally it includes the implementation of the fire safety measures and procedures within the premises, and carrying out remedial works and maintenance as and when necessary.

It is important to note, that notwithstanding the remediation of fire safety defects in any apartment buildings and the issuing of Certificate of Remediation of Fire Safety Defects (see Appendix F) ,the OMC will continue to be bound by the statutory fire safety responsibilities set out in S18(2).

# **4.0 Competent Professional**

The provisions contained in this COP are of a technical nature and are intended to be used, interpreted and applied by suitably qualified competent professionals with appropriate experience in respect of fire safety.

In this context it is considered that a competent professional should hold one of the following qualifications:

- Architects on the register maintained by the RIAI under Part 3 of the Building Control Act 2007,
- Building Surveyors on the register maintained by the SCSI under Part 5 of the Building Control Act 2007,
- Chartered Engineers on the register maintained by Engineers Ireland under section 7 of the Institution of Civil Engineers of Ireland (Charter Amendment) Act 1969,

# **5.0 Process Flow Diagram-Fire Safety Defects**

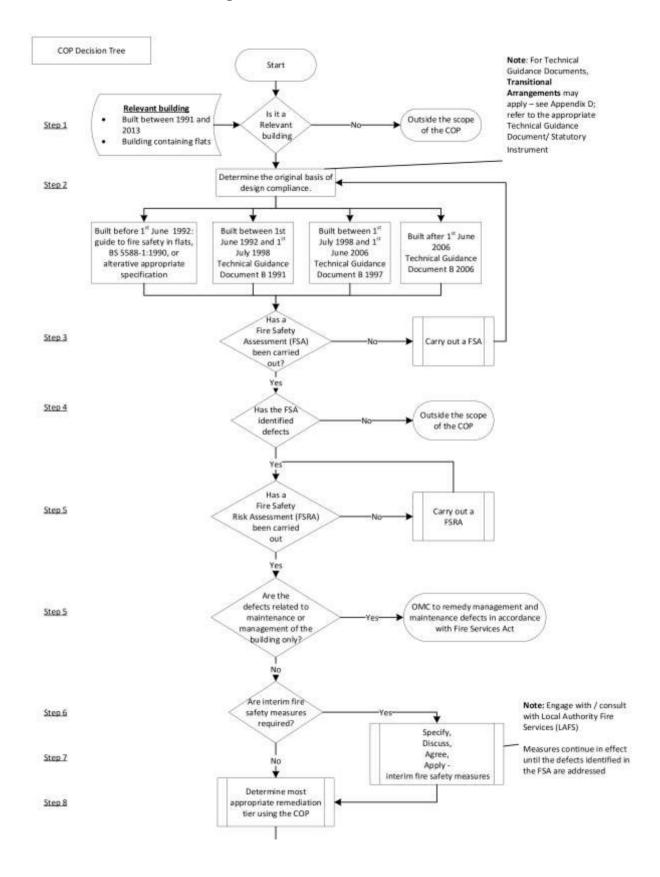
The methodology and route to identifying and remediating fire safety defects in purpose built apartment and duplexes, to ensure any remedial works required achieve compliance with the requirements of this COP are illustrated in Diagram 1.

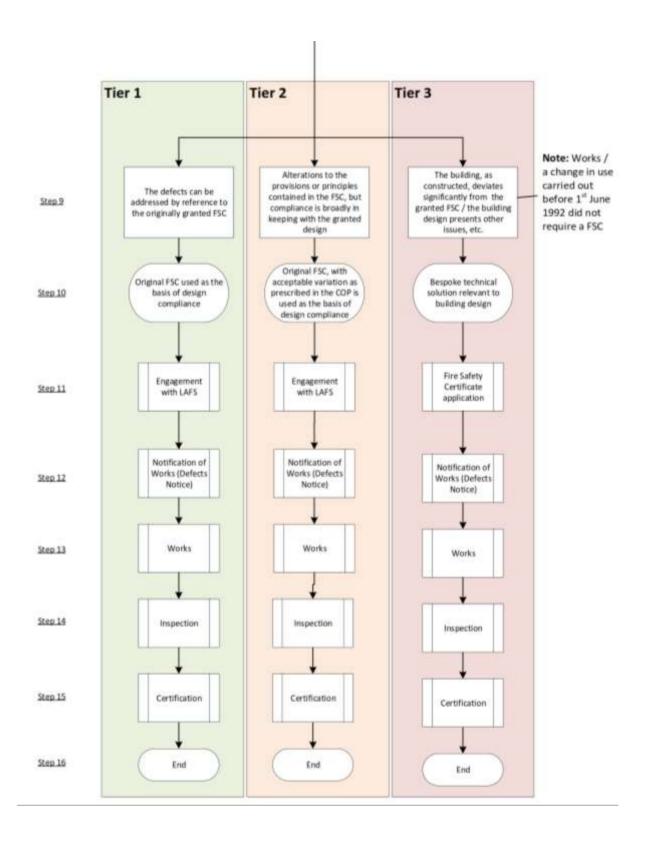
It illustrates the sequence of decision making gateways in a series of steps from 1-16.

This sequential approach provides a clear route to:

- Identify relevant buildings,
- Identify the presence of any fire safety defects,
- Apply relevant regulatory requirements that applied at the time of construction,
- Prepare remedial works plans and inspection plans,
- Identify considerations during the remediation works, and
- Certify the works on completion.

## **Process Flow Chart, Diagram 1**





# **6.0 Fire Safety Assessment**

A fire safety assessment is a specific inspection and assessment of fire safety provisions and features in each apartment or duplex building, taking into account, but not limited to the:

- Basis of design compliance,
- Complexity of the building,
- · Age of buildings,
- Construction, characteristics,
- Building location,
- Passive/active fire safety systems, etc.

The assessment should be undertaken by a competent professional. When planning the assessment, the competent professional should consider the scale and scope of fire safety assessment appropriate for the building concerned.

The assessment must include an on-site survey or inspection of the building.

The assessment must also include a review of the procedures for the management of fire safety in the building to ensure that they are to appropriate standards and comply with section 18(2) of the Fire Services Acts 1981 and 2003.

The fire safety assessment should be undertaken in accordance with the "Code of Practice for the Fire Safety Assessment of Premises and Buildings" (2022) Published by the Department of Housing Planning and Local Government.

Additionally, due consideration should be given to the provisions in the following publications:

• Framework for Enhancing Fire Safety in Dwellings where concerns arise (2017), with particular attention to the risk assessment methodology.

Fire Safety Guide for Building Owners and Operators - Guide for Persons having Control under Section 18(2) Fire Services Acts 1981 & 2003(2023), with particular attention to the guidance on the general day to day operation and maintenance of fire safety measures relevant to purpose built apartment and duplexes.

# **6.1 Basis of Design Compliance**

The fire safety assessment of each apartment or duplex building will begin with an assessment of the original intended fire safety strategy design (Dig, 1 step 2). Consulting, in the first instance, with the relevant granted Fire Safety Certificate (FSC) application(s)), the FSC as granted, and their associated documentation.

Where a FSC is not available or does not exist, the requirements of the Building Regulations as existed at the time of construction, or other relevant standards, where appropriate, should be applied.

See Dig 1 step 2, to determine the relevant iteration of Technical Guidance Document B that may be applicable to each apartment building.

Appendix D includes a table that illustrates the transitional arrangements for the application of the relevant iteration of TGD B.

In the case of buildings built before 1992, the Guide to fire safety in flats, Bedsitters and Apartments or BS 5588-1 or other appropriate alterative design may be appropriate.

# **6.2 Building survey**

The building survey should be a comprehensive assessment of the as-constructed apartment or duplex building.

The building survey should in particular, include the following areas:

- Common circulation areas
- Interior of each compartment/apartment
- Inter-compartment construction
- The external wall construction
- Associated external site areas facilities and access arrangements.

The survey should consider construction deemed not to be delivering the standard of fire safety protection set out in the design and/or the expected construction. It should consider whether the construction demonstrates compliance with Parts B1 to B5 of the Second Schedule to the Building Regulations, as existed at the time of construction, or other relevant standards, where appropriate, (see.Dig.1 Step 3 and Appendix D).

It will be necessary to undertake sufficient opening up works, and in some cases material testing may be required, to establish the nature and extent of any fire safety defects.

The building survey needs to be as comprehensive as necessary to identify all fire safety defects.

# 6.3 Opening up Works

In order to identify the nature extent of any fire safety defects that may be present in purpose-built apartments and duplexes, opening up works will to be required. Any opening up works required should be identified during the Fire Safety Assessment and carried out in conjunction with the building survey.

# **6.4 Fire Safety Assessment Record**

A comprehensive and tabulated written record of matters of concern and fire safety defects identified during the fire safety assessment should be prepared for this stage of the assessment process, with each item duly identified against an agreed naming convention for the various locations around the building.

The assessment record should identify if the defects are likely to be stand-alone items or if they form a pattern of repeating defects located throughout the building.

The assessment record should indicate the probable cause of each defect, i.e. whether attributable to defective design, defective or faulty workmanship or defective materials (or any combination of these). These defects will have to be risk assessed against the original intended outcome.

# 7.0 Fire Safety Risk Assessment

A fire safety risk assessment is required following the completion of the Fire Safety Assessment of the apartment building (see Section 6 above). It is used to evaluate and categorise the level of risk arising from each item listed in the fire safety assessment and to aid in the prioritisation of any mitigation or remedial works required.

The level of risk arising from each item listed in the fire safety assessment should be established to consider the impact of each item in the event of a fire, taking a whole-building approach.

The primary focus of the risk assessment is the perceived risk to the life or safety of the occupants within each apartment / duplex building.

Each item listed in the fire safety assessment should be both individually assessed, and assessed as part of its intended sub-system (e.g. control of fire spread) and/or as part of assemblies and/or building elements that are required to be provided.

It is important that early judgements about the level of a risk should be avoided, given that on its own, a fire safety defect may in itself be minor but in combination with other fire safety defects its potential impact may be serious.

The risk of each item listed in the fire safety assessment should be weighed against the impact of same on the building or part of the building.

Each item listed in the fire safety assessment should be risk assessed, in particular, in respect of the following non-exhaustive list of areas:

- Common circulation areas
- Interior of each compartment/apartment
- Inter-compartment construction
- External wall construction
- Associated external site areas facilities and access arrangements.

Consideration should be given to the methodology to carry out a fire safety risk assessment provided in the "Framework for Enhancing Fire Safety in Dwellings where concerns arise"

The risk assessment process includes, but is not limited to, the consideration of the following:

- (i) Information about the premises, the materials and the defect(s)
- (ii) Identification of fire defects (hazards) and the actual fire safety measures taken
- (iii) Assessment of the nature of the impact of the defect in the event of a fire

- (iv) Assessment of the contribution of the fire protection measures taken
- (v) Assessment of current and potential fire safety management measures
- (vi) Assessment of likely consequences in the event of a fire
- (vii) Assessment of the relative contribution to fire risk control provided by the remedial action
- (viii) Formulation of an action plan and engagement with to the Fire Authority
- (ix) Periodic review of the implementation of the schedule of remedial actions

# 7. 1 Assessing the Overall Risk Rating for Each Item

The importance of the risk of harm from a fire safety defect is related to the severity of its outcome should it materialise.

Each risk item must be assessed, this involves three sub-steps, as follows:

- Assign a (likelihood of) occurrence rating to the risk item,
- Assign an (anticipated severity of) impact rating to the risk item,
- Assign an overall score to the risk which is a product of the likelihood and impact ratings, to give an overall risk rating.

The likelihood rating is judged by reference to the likelihood of the risk item occurring (and potentially causing ill-effects) in accordance with the following scoring criteria:

- 1. Rare / remote
- 2. Unlikely
- 3. Possible
- 4. Likely
- 5. Almost certain

Impact scoring is based on the anticipated severity of the outcome. In scoring impact the risk item is graded from 1 to 5, with 5 indicating the most serious outcome, and 1 the least serious outcome. The scoring criteria are as follows:

- 1. Negligible harm
- 2. Minor harm
- 3. Moderate harm
- 4. Major harm
- 5. Extreme harm.

## 7.2 Establishing the Overall Risk Rating for Each Risk Item

The product of the two scoring outcomes provides an overall risk rating, based on the table: Table 1 - Risk rating for each risk item, 7.2 and Table 2: Priority ratings, below.

Risk rating for each risk item

| RISK<br>MATRIX        | Negligible (1) | Minor (2) | Moderate (3) | Major (4) | Extreme (5) |
|-----------------------|----------------|-----------|--------------|-----------|-------------|
| Almost<br>certain (5) | 5              | 10        | 15           | 20        | 26          |
| Likely (4)            | 4              | 8         | 12           | 18        | 20          |
| Possible (3)          | 3              | 6         | 9            | 12        | 16          |
| Unlikely (2)          | 2              | A         | 6            | 8         | 10          |
| Rare (1)              | 1              | 2         | 3            | 4         | 5           |

Table 1 - Risk rating for each item

**Priority Ratings** 

| Red rating<br>(15 – 25): | High risk   | Intervention rating A | Immediate or as soon as possible |
|--------------------------|-------------|-----------------------|----------------------------------|
| Amber rating (6 – 12):   | Medium risk | Intervention rating B | Early or short term              |
| Green rating<br>(1 – 5): | Low risk    | Intervention rating C | Within a limited time frame      |

Table 2 – Priority Risk Ratings

# 7.3 Documentation of the Fire Safety Risk Assessment(s)

Following risk assessment, the matters of concern and fire safety defects identified in the fire safety assessment, should be presented in a tabular form in a fire safety risk assessment report.

The fire safety risk assessment report should include an appropriate plan and timeline for the mitigation of each risk item.

The fire safety risk assessment report may subsequently be developed into a schedule of Remedial works.

# 8.0 Interim Fire Safety Measures

Following the completion of the fire safety assessment, and fire safety risk assessment processes by the competent professional, it may become apparent that interim fire safety measures may be necessary to allow occupants to safely remain in their homes pending completion of the planned overall remedial works to the entire building. (see Dig 1, step 6).

It is important to note that whilst these interim measures may be acceptable in the short term to facilitate the continued use of the building, they are not to be viewed as a long-term solution. However, in some cases the interim measures may be incorporated into the overall solution for the building.

In general, the purpose of interim measures will be to provide an acceptable level of fire safety in the building, pending completion of remedial works.

The provision of interim fire safety measures may be adjusted as remedial works are completed (where provided for in the fire safety assessment).

Where interim fire safety measures are proposed, the OMC and competent professional should engage with the Fire Authority (see Dig 1, step 7 and Section 12) who may exercise their powers under the Fire Services Acts 1981 & 2003.

# 8.1 Range of Interim measures

Interim measures may include the following non-exhaustive items:

- An enhanced fire detection and alarm system, either, by expanding existing central systems and/or providing self-contained battery-operated smoke or heat alarms, and,
- In extreme cases may involve the presence of fire wardens.
- Management of fire safety, for example:
  - Ensure escape routes are clear, readily available for use and provided with adequate emergency lighting.
  - Ensure that emergency fire procedures for the building are in place and engage with residents to ensure that they are fully aware of fire safety measures and evacuation procedures.
  - notices to explain the fire safety measures and evacuation procedures (in different languages as appropriate)
  - The frequency of drills/inspections to test fire safety measures and evacuation procedures, and recording same in a fire safety register.
  - Undertake regular checks to ensure that:
    - Doors close properly to prevent spread of fire and smoke
    - Escape routes are clear and free from trip hazards
    - There is no storage of articles in escape routes

- To prevent storage of combustible materials (such as refuse) in the vicinity of the building, at ground level or on balconies – for example, by using barriers, and/or by issuing instructions to occupants
- Engage with owners/occupiers of any commercial units within the building to minimize the risks between different building occupants
- Check that all entrance doors to individual apartments, and doors that open onto escape corridors and stairways, are fire resisting and effectively selfclosing against any latch resistance
- Obtain, and where necessary update, current certification for existing fire safety systems
- Ensure that gas and electrical installations are checked by a competent professional for compliance with current standards.
- Closure of part(s) of the premises identified in the risk assessment as presenting a serious hazard
- Install temporary fire resisting construction
- Provide fixed extinguishing equipment
- Check all facilities provided for the fire service, including fire-fighting lifts and dry or wet rising mains are in proper working order and certified;
- Other relevant, specific proposals.

# 9.0 Determine the appropriate Remediation Approach

#### 9.1 Standard for remedial works

The standard for remedial works as set out in the report of the Working Group to Examine Defects in Apartments (See Appendix G), outlines the overarching goal for achieving a reasonable level of life safety in the remediation of fire safety defects.

The report also recommends that when addressing fire safety defects, the whole building must be considered, requiring that a whole-building approach to fire safety is adopted.

Buildings should be remediated to the standard that applied at the time of their original construction, i.e. to the originally granted Fire Safety Certificate, to the appropriate version of Technical Guidance Document B, or in the case of works carried out before June 1992, to an appropriate standard.

Where it is not practicable to achieve this, alternative approaches and options should be considered that provide a reasonable level of life safety protection in accordance with the Fire Services Acts 1981 & 2003.

This section outlines three common remediation options for affected apartment and duplex buildings Tier 1, Tier 2 and Tier 3 (See Diagram 1).

In relation to building standards, the Building Regulations apply to certain works to existing buildings, e.g. all works in connection with the material alteration or extension of an existing building, a repair and renewal that is likely to affect the structural integrity of the building, or building element being repaired or renewed, etc.

No works shall be carried out to a building that would cause a new or greater contravention in the building of any provision of Building Regulations. As a result, in general, the reinstatement of building elements in a remediation project should be on a 'like for like' performance basis.

Following the overall guidance, the recommended approach to remediation of fire safety defects is that works to be carried out to elements of the building (following the fire safety assessment process) should individually comply with the requirements of the relevant Building Regulations.

# 9.2 Tiered approach

Depending on the scale and nature of defects identified, the appropriate remediation option; Tier 1, Tier 2 or Tier 3, should be identified by the competent professional (see Diagram 1, step 7).

#### 9.3 Tier 1

Tier 1 refers to circumstances where the building can be brought into compliance with the requirements of the original granted Fire Safety Certificate, without modification.

#### 9.4 Tier 2

Tier 2 refers to circumstances where the building can be brought into compliance with the requirements of the original granted FSC, with limited modifications.

This approach is appropriate in instances where the building, as constructed, is broadly in keeping with the original granted FSC design, but presents other issues, where compliance with the granted FSC is not practicable.

In such cases, alternative measures to compliance, which are limited in extent and subject to engagement with the Fire Authority, may be considered appropriate.

## 9.5 Tier 3

The building cannot be brought into compliance with the requirements as set out in original granted FSC, without substantial modification.

Significant deviations to the original granted FSC, and/or other issues, will require a tailored approach to achieving the required level of safety. This will require the application for a new FSC, as required under Article 11 and 12 of the Building Control Regulations 1997-2021.

Where Tier 3 is selected, a reasonable level of fire safety may be achieved by a comparative or probabilistic analysis with other methods and must be benchmarked against similar guidance.

It will be the responsibility of the competent professional to undertake this analysis to establish that compliance with the objectives of the Building Regulations is achieved, to oversee the remediation works and to provide certification on completion (see Appendix E and F).

#### 9.5.1 Alternative approaches and options for remedial works

When it is established through reference to the Process Flow Chart (Dig 1), that it is impractical to comply with the original FSC, either without modification (Tier 1), or with limited modification (Tier 2), alternative measure(s) may need to be considered by the competent professional to provide a similar overall level of fire safety for the occupants of the building in compliance with Section 18 (2) of the Fire Services Act 1981 & 2003. In this case Tier 3 may be the most appropriate approach.

As each building is physically unique, in terms of size, layout, structure and each may have alterative fire safety strategies. It must be understood that alternative measure/s that are acceptable in one building may not be acceptable in another building. A non-exhaustive list of alternative measures that may be considered are as follows:

- Enhanced or extended landlord fire alarm system
- Upgrades to domestic fire alarm
- Linking domestic fire alarms
- Increased corridor separation
- Sprinkler system
- Mist systems
- New or enhanced ventilation systems for staircase and/or hallways
- Increase rating of fire doors from 30mins to 60min
- Fire rating of service risers at floor level instead of wall level combined with detection in the risers
- Enhanced or additional refuge areas
- Reduced travel distances
- Additional escape routes
- Enhanced firefighting equipment, each apartment provided with suitable extinguishers etc.
- Methodologies arising from a Fire Engineering Approach

#### 9.5.2 Prioritisation Review Process (PRP)

The first step in any strategic design review is to establish the basic parameters for the project. This includes a review of the impacts of the defects in the event of a fire, with the primary focus on the risk to the life or safety of the occupants Other considerations in relation to defects are their impact on the:

- Fire safety strategy,
- Impact both locally and globally on the building
- Progressive impact in the event of a fire,
- Identification of any overriding constraints and
- Identification of any overriding constraints, and
- Definition of the intended fire safety strategy's design

This initial stage will draw on the expertise and experience of the competent professional and any other member of the design team.

#### 9.5.3 Quantitative analysis

Where a detailed quantitative analysis of the building's fire safety provisions is deemed appropriate. The quantitative analysis may use probabilistic or deterministic procedures or a combination of both.

#### 9.5.4 Assessment of proposed remedial actions against fire safety criteria

Following the quantitative analysis, the results need to be compared with the fire Safety criteria identified during the PRP. If the proposed remedial action(s) satisfies the specified fire safety criteria, the PRP and quantification process should be repeated until a fire safety strategy has been found that satisfies the fire safety criteria.

#### 9.5.5 Basic approaches

Three basic approaches can be considered by the PRP team when setting fire safety criteria:

- (a) Comparative;
- (b) Deterministic;
- (c) Probabilistic.

One or more of these approaches may be utilised as part of a desktop study. Whatever approach or combination of approaches is adopted, the criteria should, in general, satisfy the objectives of the Fire Services Acts 1981 and 2003. The fire safety objectives defined in the applicable regulations will determine the intended outcomes.

## 9.5.6 Comparative criteria

It can often be difficult to establish the level of safety achieved in absolute terms. However, it might be relatively straightforward to demonstrate that the proposed action provides a level of safety equivalent to that in a building that complies with a recognised prescriptive code, either that of TGD-B or that published under Section 18A of the Fire Services Acts 1981 & 2003. A comparison may be made on the basis of deterministic or probabilistic approaches or a combination of both.

#### 9.5.7 Deterministic criteria

The objective of this approach is to show that in a worst case scenario, following implementation of the remedial actions, a defined set of conditions will not occur (e.g. smoke will not obscure protected enclosures during the evacuation period).

#### 9.5.8 Probabilistic criteria

Probabilistic criteria are set to ensure that the probability of a given fire event occurring and its associated consequences affecting life safety is acceptably low. The risk criteria are usually expressed in terms of the annual probability of the unwanted event occurring.

Guidance regarding probabilistic risk assessment techniques may be found in published documents, and codes of practice which may provide sufficient evidential documentation to support this approach.

# 9.6 Deviation from appropriate Standards (Tier 2 and Tier 3)

Where significant deviations from the appropriate standards may be discovered in relation to many aspects of the building, for example:

- Configuration and/or the manner of the means of escape
- Provision of fire precautions
- · Provisions for smoke control
- · Materials used on linings or within the fabric of the building
- Materials used for the structure or for the protection of the structural elements
- Control measures taken for the control of external fire to and from neighbouring buildings
- Access for the fire brigade to fight a fire and/or rescue occupants
- Facilities provided for the fire brigade to fight a fire and/ or rescue occupants.

The options set out in Tier 2 or Tier 3 can be selected to ensure the most appropriate design of the remedial works in order to achieve a reasonable level of occupant fire safety.

#### 10.0 Prioritisation of works items

Following the identification and risk assessment of defects, the identification of mitigations measures and their implementation timeline, and the selection of the appropriate Tier, the implementation of the proposed mitigation measures remedial should be prioritised. In this stage the remedial actions to mitigate or eliminate the identified risks are set out.

The recommended remedial actions are assigned a priority rating, taking account of the fire safety risk assessment. The interventions decided upon will be the actions to control the risks of harm, which will contribute to risk mitigation. Mitigation options should be included in the fire safety risk assessment.

In some instances, short term initial actions (interim fire safety measures), may be required followed by longer term, more significant, interventions.

The objective of the remediation works is to achieve an acceptable standard of fire safety, either immediately or within a reasonable timeframe, depending on the risk presented. For instance, certain fire safety management improvements may not have a very high risk rating, but may be recommended for immediate implementation, due to being of low cost and practicable to achieve.

The application of professional judgement will be required when considering the risk ratings, and certain remedial improvements may be accorded a higher priority than indicated by the risk rating alone.

A schedule should then be developed listing proposed remedial actions in descending order of priority. The schedule will be populated as to effectiveness, practicability and feasibility.

When scheduling works, it may be convenient to complete some "low priority" works at the same time as "high priority" works, to avoid creating disruption to operation of premises on multiple occasions.

Recommended remedial actions should be set out in a Risk Rating Findings and Recommendations table (See Appendix B).

# 11.0 The Remedial works plan (RWP)

The Remedial work plan (RWP), is a plan for the design, specification and inspection of the remedial works to be undertaken following the fire safety assessment process.

The RWP should be prepared by the competent professional and include a specification document, construction drawings, and any other necessary technical information setting out the necessary measures to remediate the fire safety defects in the apartment / duplex building.

The RWP must contain sufficient detail to enable the carrying out the remedial works and includes (but is not limited to);

- Construction drawings, i.e. plans, elevations, details, etc.
- Specification of materials
- Removal and reuse of existing materials, where practical
- Identification of specific risks
- Quality control of construction products/material used
- Inspection plan
- Fire Safety deficiency detail
- Recommended remedial works
- Time to completion / Issue close

The competent professional has a responsibility to coordinate the inputs of any other consultants or specialist designers such as quantity surveyor, architect, and structural engineer, mechanical and electrical engineer or façade engineer.

The implementation of the RWP, combined with ongoing supervision by the competent builder, will facilitate the certification of completed works.

The remedial works plan should be supported by an inspection plan, to be implemented by the competent professional and builder.

## 12.0 Inspection Plan

The thoroughness of the inspection process developed and implemented by the competent professional and specialist designers, on behalf of the OMC, is critical in ensuring a satisfactory outcome to the remediation works.

The competent professional and specialist designers nominated to undertake inspections should develop an Inspection Plan (see sample template Appendix C) appropriate to the works they have designed.

The Inspection plan should take full account of the fire safety assessment, remedial works plan and relevant factors for the building work concerned.

Key remediation works should be prioritised for inspection by the competent professional, and specialist designers. Other appropriate checks should be carried out as deemed necessary.

Relevant factors should be assessed at the outset and regularly reviewed so that effective control is maintained for the duration of each project.

Adequate site inspections should be undertaken.

Sufficient records should be kept that demonstrate the application of reasonable skill, care and diligence.

An appropriate Inspection Plan is dependent on many factors including:

- (a) type of building, type of construction and expertise of the Builder;
- (b) how complicated or relatively straightforward the remediation works are;
- (c) whether recent experience indicates current problems in interpreting and/or achieving compliance with certain requirements;
- (d) how serious the consequences of a particular contravention might be;
- (e) the impracticability or impossibility of subsequent inspection of closed up work; and
- (f) the speed of remediation.

Prior to the commencement of the works, the competent professional should prepare a coordinated Inspection plan and ensure its implementation throughout the course of the works.

# 13.0 Engagement with the Fire Authority

Where fire safety remedial works are proposed, (including interim fire safety measures) the competent professional should engage with the Fire Authority.

As part of the engagement, the following non-exhaustive list of documents should be provided to the Fire Authority:

- Fire Safety Assessment
- Fire Safety Risk Assessment
- Preliminary Remedial Works Plan
- Identification of the Remediation Tier
- Proposed interim measures
- Coordinated inspection plan
- Drawings
- Any other relevant reports.

However, while fire authorities may give advice on fire safety, implementation of remedial works will be based on the findings and recommendations of the competent professional and reflect the findings of the fire safety risk assessment.

The outputs of the engagement should include written advice from the Fire Authority.

In the case of a Tier 3 approach, which requires a bespoke alternative solution, the application for a new FSC will be required as part of the overall solution for the building.

It should be noted that the Fire Authority will, in any case, retain the option of exercising its enforcement powers under the Fire Services Acts 1981 and 2003.

#### 14.0 Notification and Commencement of Remedial Works

Prior to commencement of remedial works, and following engagement with the Fire Authority, a Notification of Remediation of Fire Safety Defects form (see Appendix F) should be issued to the Fire Authority by the OMC, or the competent professional on behalf of the OMC.

This notification will confirm to the Fire Authority that the remedial works, that are due to commence, will be in accordance with the requirements of this COP and that upon completion, will demonstrate compliance with the relevant regulatory requirements.

Both the Notification of Remediation of Fire Safety Defects and the Certificate of Remediation Fire safety defects (at completion stage) will be required to demonstrate compliance with the relevant regulatory requirements. (See Appendix E and F)

# 15.0 Carrying out remedial works

The extent of remedial works required to address fire safety defects are collated in the RWP, associated drawings and specifications.

Remediation works may be required to both the interior of apartments/duplexes and the common areas of buildings containing them. This may present logistical challenges for OMCs in providing access to all parts of the building to the builder when carrying out remedial works. However, Section 13 of the Multi-Unit Developments Act 2011 provides OMCs with the right to effect essential repairs and access individual properties.

Remedial work shall be completed in accordance with the RWP.

The remedial works shall be inspected by the competent professional, specialist designers and specifiers in accordance with the coordinated Inspection Plan prepared prior to the commencement of the works.

# **15.1 Competent Builder**

Works should be carried out by competent Builders and competent building subcontractors who have demonstrated an acceptable level of training knowledge skills and experience.

Their competence may be demonstrated by registration on the Construction Industry Register Ireland (CIRI).

The Builders is also required to supervise and maintain records of the works in progress as well as providing an insight to the typical aspects of remediation works that warrant closer supervision to assist in reducing the risk of non-compliances.

# 16.0 Implementation of the Inspection Plan

During the course of the remediation works the competent professional and specialist designers should conduct their inspections in accordance with the Inspection Plan (see sample template Appendix C), with additional inspections undertaken as may be necessary in response to any additional issues arising during ongoing site works.

Records of each inspection should be maintained and coordinated by the competent professional, assisted by specialist designers and should be sufficient to identify the relevant defect, identify the remedial action undertaken, and any other work as necessary.

It is important, to ensure that proper, evidence-based inspection arrangements and procedures are in place to record and document the defects remediation.

# 16.1 Builder's Supervision of Works

The thoroughness of the supervision regime employed by the builder during the execution of the works is critical in ensuring a satisfactory outcome and for certification of works upon completion.

In advance of commencement the builder should advise the competent professional of the personnel who will be supervising the works, and their relevant experience.

## 17.0 Completion of remedial Works

At completion of the remedial works, the competent professional is required to submit the following to the Fire Authority:

- Certificate of Remediation Fire safety defects
- Inspection plan as implemented
- Updated Fire Safety Risk Assessment
- Plans, calculations, specifications and particulars, showing how the completed building has achieved compliance with this COP.

Both the Notification of Remediation of Fire Safety Defects, and the Certificate of Remediation Fire Safety Defects will be required in all cases where fire safety remediation works are proposed and carried out (see Appendix E and F).

# **Appendix A: Recommendations of the report of the Working Group to Examine Defects in Housing**

## (R5) Interim Measure

Where necessary, interim measures should be carried out, pending the implementation of full remedial works, to enable continued use of the building as an apartment/duplex building.

As per the report of the Working Group to Examine Defects Section 6.5.2.3 Interim measures are measures or works that may need to be carried out pending the implementation of full remedial works.

Interim measures will be required only in certain cases. They should be based on the findings of an initial survey report and subsequent risk assessment. Interim measures may be temporary, or part of the long-term remedial works. Interim fire safety measures may include enhancement of the fire detection and fire alarm system, and in extreme cases may involve the presence of fire wardens. Where interim fire safety measures are proposed, the Fire Authority should be consulted and may exercise powers under the Fire Services Acts 1981 and 2003.

## (R7) Standard of Remedial Works

- a) Apartments/duplexes should, where practicable, be remediated to the standard that applied at the time of their original construction, e.g. in respect of fire safety, the original FSC or appropriate Technical Guidance Document.
- b) Where it is not practicable to achieve the standard identified at a), alternative approaches and options should be considered that provide a reasonable level of life safety protection in accordance with the Fire Services Acts 1981 & 2003.

## (R8) Purpose

- a) To support the development of a reasonable and practicable approach to resolving defects, and in order to ensure a consistent approach nationwide to remediation, a Code of Practice should be developed to provide guidance to building professionals and Local Authority building control / Fire Authority.
- b) The scope of the Code of Practice should cover the following:
  - (i) Identification of defects / initial building survey and report
  - (ii) Safety risk assessment of defects
  - (iii) Standard for remedial works
  - (iv) Prioritisation of remedial works
  - (v) Identification of interim measures
  - (vi) Alternative approaches and options for remedial works
  - (vii) Scheduling of remedial works
  - (viii) Carrying out of remedial works
  - (ix) Certification of remedial works

c) In relation to fire safety defects, use of the provisions in Section 18A of the Fire Services Acts 1981 & 2003 for the preparation of the proposed Code of Practice should be considered. This is in order to provide guidance on a reasonable level of remedial works to address fire safety defects in apartments/duplexes constructed between 1991 and 2013.

## (R10) Certification

Remedial works should be certified in a prescribed format by both the competent building professional and the competent builder, in accordance with this COP.

# **Appendix B: Priority Ratings Outcomes**

| Table            | B3 Risk Rating F   | Findings and R              | ecommendations   |               |                   |                     |                           |
|------------------|--|-----------------------------|--|---------------|-------------------|---------------------|---------------------------|
| Risk Item Number | Risk<br>Item Description                                 | Photo                       | Recommended<br>Interventions   | Impact Rating | Likelihood Rating | Overall Risk Rating | Intervention<br>Priority- |
| BUILDI           | NG()   |                             |  |               |                   | •                   |                           |
| FLOOR            | LEVEL(-)   |                             |  |               |                   |                     |                           |
|                  | Description in words<br>of the unacceptable<br>Risk Item | Photograph illustrating the | Description of remedial action or actions or actions required. See Note(1) | х             | Y                 | XY                  | A                         |
|                  |  | Risk Item                   |  |               |                   |                     | or B                      |
|                  |  |                             |  |               |                   |                     | or C                      |
| 1                |  |                             |  |               |                   |                     |                           |
| 2                |  |                             |  |               |                   |                     |                           |
| FLOOR            | LEVEL(-)   |                             |  |               |                   |                     |                           |
| 1                |  |                             |  |               |                   |                     |                           |
|                  |  |                             |  |               |                   |                     |                           |
|                  |  |                             |  |               |                   |                     |                           |
| F                |  |                             |  |               |                   |                     |                           |
|                  | NAL ISSUES   |                             |  |               | 1                 |                     |                           |
| E.1              |  |                             |  |               |                   |                     |                           |
|                  |  |                             |  |               |                   |                     |                           |
| FIRE S           | AFETY <b>M</b> ANAGEMENT I                               | SSUES                       |  |               |                   |                     |                           |
| M.1              |  |                             |  |               |                   |                     |                           |
|                  |  |                             |  |               |                   |                     |                           |
|                  |  |                             |  |               |                   |                     |                           |
| Notes            |  | 1                           |  |               | <u> </u>          |                     |                           |

#### Notes

<sup>1.</sup> In some instances, there may be a short term and a longer term recommendation. In those cases, the competent professional should set out the basis for the two stage approach

<sup>2.</sup> Column 8to be colour coded red, amber or green, according to the risk rating and as per Table B1 above

# **Appendix C: Sample Inspection Plan**

| Stage of Work | Inspection by the competent professional   |  |  |  |
|---------------|--|--|--|--|
|               | Confirmation of inspection of priority elements as identified in the Inspection Plan and other appropriate checks, as deemed necessary |  |  |  |
|               | Elements Inspected   | Date of inspection by competent professional |  |  |
|               |  |  |  |  |
|               |  |  |  |  |
|               |  |  |  |  |
|               |  |  |  |  |
|               |  |  |  |  |
|               |  |  |  |  |
|               |  |  |  |  |

# **Appendix D: Dates of Application and Transitional Arrangements of Technical Guidance Documents**



## **Appendix E: Notification of Remediation of Fire Safety Defects**

# **Notification of Remediation of Fire Safety Defects**

**Note:** The completed form should be submitted to the local authority in whose administrative area the building is located Local Authority: Unique Identifier: (For official use only) Part A – Relevant Building or Works This Notification relates to the following building or works: **Building address** (including Eirocde): Apartment No. Floor level Eircode: Related Common Areas (Yes/No) Part B – Owners Management Company (OMC) Details OMC Name: OMC Address (including Eirocde): **OMC Contact Name: OMC Contact Phone Number OMC Contact Email address:** 1. On behalf of the Owners Management Company, I hereby give notice to:

that I intend to commence remediation of fire safety defects to the building or works

scheduled in Part A.

| Dat | te works will commence:   | _                     |
|-----|---|-----------------------|
| Sig | gnature:  | _                     |
| Dat | te:   | _                     |
| Na  | me (BLOCK CAPITALS):  | _                     |
| P   | Part C - Certificate signed by a competent Building Profession  | nal <sup>(2)</sup>    |
| 2.  | I confirm that I am the competent building professional appointed by the Owners Management Company referred to in Part B, to prepare a remedial works plan for the building or works referred to in Part A, which includes a plan for the design, specific and inspection of the works required to be carried out to the building.  |                       |
| 3.  | I confirm that I am a person named on a register maintained pursuant to Part 3 or Pa the Building Control Act 2007 or Section 7 of the Institution of Civil Engineers of It (Charter Amendment) Act 1969 and that I am competent to carry out my design for remediation works plan.   | reland                |
| 4.  | I confirm that the design of the remedial works, identified below, has been prepared exercising reasonable skill, care and diligence by me, and by other members of the determ and specialist designers whose design activities I have coordinated, to demonst compliance with the requirements of the <i>Code of Practice for the Remediation of Fit Safety Defects</i> , pursuant to Section 18A of the Fire Services Acts 1981 &2003, insoft they apply to the remedial works concerned. | lesign<br>trate<br>re |
|     | Please as appro   |                       |
|     | a. <b>Tier 1</b> – Compliance with the original Fire Safety Certificate.  |                       |
|     | Fire Safety Certificate No  |                       |
|     | Date Granted:   |                       |
|     | <ul> <li>b. Tier 2 – Compliance with the original Fire Safety Certificate, with an acceptable variation as prescribed in the <i>Code of Practice for the Remediation of Fire Safety Defects</i>, pursuant to Section 18A of the Fire Services Acts 1981 &amp; 2003.</li> </ul>  |                       |

|    | Fire Safety Certificate No  |
|----|---|
|    | Date Granted:   |
|    | c. <b>Tier 3</b> – Bespoke technical solution relevant to building design. $\Box$   |
| 5. | Based on the above, I am satisfied, having exercised reasonable skill, care and diligence, that the remedial works have been designed to an acceptable standard in accordance with the remedial works plan, in compliance with the requirements of the <i>Code of Practice for the Remediation of Fire Safety Defects</i> , pursuant to Section 18A of the Fire Services Acts 1981 & 2003, insofar as they apply to the remedial works concerned. |
| 6. | I confirm that the Remedial Works Plan is included in the appendix to this Notification.  |
| Si | gnature:  |
| Da | te:   |
| Na | me (BLOCK CAPITALS):  |
| Re | gistration Number:  |
| W  | nere the signatory is performing the role for, or on behalf of, an employer or partnership please provide the name, address and contact details of the employer/partnership.  |
|    | Name:   |
|    | Address (including Eirocde):  |
|    |   |
|    | Contact Phone Number  |
|    | Email Address:  |
|    | Practice Registration Number (where relevant):  |
|    | PPENDIX emedial works plan is attached hereto.  |
| E  | xplanatory Notes:   |

- (1) A "remedial works plan" means a plan for the design, specification and inspection of the works required to be carried out to the building, having regard to fire safety defects identified by the fire safety assessment and in consultation with the relevant Fire Authority.
- (2) A "competent professional" means a person [named on a register maintained pursuant to Part 3 or Part 5 of the Building Control Act 2007 or Section 7 of the Institution of Civil Engineers of Ireland (Charter Amendment) Act 1969

# **Appendix F: Certification of Remediation of Fire Safety Defects**

# **Certification of Remediation of Fire Safety Defects**

| Fire Authority:                              |               | Unique Id  | entifier:                     |
|--|---------------|------------|-------------------------------|
| •  |               | •          | (For official use only)       |
| Dont A Dolovant                              | Ruilding or W | orlza      |                               |
| Part A – Relevant This Certificate of remedi | _             |            | or works:                     |
| Building address (including Eirocde):        |               | <u> </u>   | 01 (10110)                    |
| Apartment No.                                | Floor level   | Eircode:   | Related Common Areas (Yes/No) |
|  |               |            | (-13.11.1)                    |
|  |               |            |                               |
|  |               |            |                               |
|  |               |            |                               |
| Part B – Owners I<br>OMC Name:               |               | ompany (ON | AC) Details                   |
| OMC Address (including                       | g Eirocde):   |            |                               |
| OMC Contact Name:                            |               |            |                               |
| OMC Contact Phone Nu                         | mber          |            |                               |
| OMC Contact Email add                        | lress:        |            |                               |

# Part C - Certificate signed by the builder

- 2. I confirm that I am the builder appointed by the following Owners Management Company referred to in Part B, to carry out, supervise and certify the remedial works further to the remedial works plan,<sup>(1)</sup> and that I am competent to have undertaken the remedial works concerned.
- 3. I confirm, having exercised reasonable skill, care and diligence that the remedial works as completed have been carried out, under my supervision, in accordance with the remedial works plan.
- 4. Reliant on the foregoing, I am satisfied that the remedial works are in compliance with the requirements of the *Code of Practice for the Remediation of Fire Safety Defects*, pursuant to Section 18A of the Fire Services Acts 1981 & 2003, insofar as they apply to the remedial works concerned.

| Signature:   |
|--|
| (to be signed by a Principal or Director of a Builder Company only)            |
| Date:  |
| Name (BLOCK CAPITALS):   |
| On behalf of:  |
|  |
| Address:   |
| Contact Phone Number:  |
| Email Address:   |
| Construction Industry Register Ireland Registration Number (where applicable): |

Part D - Certificate signed by a competent Building Professional<sup>(2)</sup>

| 5. | I confirm that I am the competent professional appointed by the Owners Management Company referred to in Part B, to implement a remedial works plan for the building, as notified to the Fire Authority by:  |
|----|--|
| No | tification of Remediation of Fire Safety Defects No  |
| 6. | I confirm that the design of the remedial works, is based on:  Please tick [ ] as appropriate  |
|    | a. <b>Tier 1</b> – Compliance with the original Fire Safety Certificate. $\Box$  |
|    | Fire Safety Certificate No   |
|    | Date Granted:  |
|    | b. <b>Tier 2</b> – Compliance with the original Fire Safety Certificate, with an acceptable variation as prescribed in the <i>Code of Practice for the Remediation of Fire Safety Defects</i> , pursuant to Section 18A of the Fire Services Acts 1981 & 2003.                                   |
|    | Fire Safety Certificate No   |
|    | Date Granted:  |
|    | c. Tier $3$ – Bespoke technical solution relevant to building design.  |
| 7. | I confirm that I am a person named on a register maintained pursuant to Part 3 or Part 5 of the Building Control Act 2007 or Section 7 of the Institution of Civil Engineers of Ireland (Charter Amendment) Act 1969 and that I am competent to carry out my design for the remedial works plan. |
| 8. | I confirm that, I have inspected the remedial works, at the stages outlined in the remedial works plan (as implemented) appended to this Certificate.  |
| 9. | Based on the above, I am satisfied, having exercised reasonable skill, care and diligence, that the remedial works have been completed to an acceptable standard in accordance with the remedial works plan, in compliance with the requirements of the <i>Code of</i>                           |

*Practice for the Remediation of Fire Safety Defects*, pursuant to Section 18A of the Fire Services Acts 1981 &2003, insofar as they apply to the remedial works concerned.

| 10. I confirm that the remedial works plan (as implemented), is included in the appendix to this Certificate and that I have advised the Owners Management Company in writing to seek professional advice from a competent building professional, if any future works to the building are planned. |
|--|
| Signature:   |
| Date:  |
| Name (BLOCK CAPITALS):   |
| Registration Number:   |
| Where the signatory is performing the role for, or on behalf of, an employer or partnership please provide the name, address and contact details of the employer/partnership.  |
| Name:  |
| Address (including Eirocde):   |
|  |
| Contact Phone Number   |
| Email Address:   |
| Practice Registration Number (where relevant):   |
| APPENDIX Remedial works plan (as implemented), Inspection Plan (as implemented), Ancillary Certificates are attached hereto.   |

- (3) A "remedial works plan" means a plan for the design, specification and inspection of the works required to be carried out to the building, having regard to fire safety defects identified by the fire safety assessment and in consultation with the relevant Fire Authority
- (4) A "competent professional" means a person [named on a register maintained pursuant to Part 3 or Part 5 of the Building Control Act 2007 or Section 7 of the Institution of Civil Engineers of Ireland (Charter Amendment) Act 196

## **Appendix G: Other Publications**

Defects in Apartment-Report of the Working Group to examine Defects in Housing published by the Department of Housing Local Government and Heritage (2022).

Code of Practice for Fire Safety Assessment of Premises and Buildings published by the Department of Housing Local Government and Heritage (2022).

"Framework for Enhancing Fire Safety in Dwellings where concerns arise" 2017

(Draft) Fire Safety Guide for Building Owners and Operators - Guide for Persons having Control under Section 18(2) Fire Services Acts 1981 & 2003

# **Appendix H: Nomenclature / Definitions/ Abbreviations**

- PHC- Person Having Control
- FSA Fire Services Act
- DHLGH Department of Housing, Local Government and Heritage

#### **Definitions**

For the purposes of this COP, the following definitions have been adopted:

#### **Apartments/Duplexes:**

Purpose-built apartment buildings, including duplexes, constructed in Ireland between 1991 and 2013.

#### Acceptable variation:

A variation which can be demonstrated to have no adverse effects on the Fire safety design and/or construction of the building, as per the Fire Safety Certificate as granted

#### **Competent Professional**

Person [named on a register maintained pursuant to Part 3 or Part 5 of the Building Control Act 2007 or Section 7 of Institution of Civil Engineers of Ireland (Charter Amendment) Act 1969

#### **Common Area**

"Common area" means an area that is available for use by more than one person/owner, and all areas under the control of the owners' management company, including the following areas:

external walls, foundations and roofs and internal load bearing walls;

entrance halls, landings, lifts, lift shafts, staircases and passages; and all ducts and conduits other than ducts and conduits within and serving only one unit in the development.

## **Fire Safety Defect**

A "fire safety defect" means a defect that is attributable to defective design, defective or faulty workmanship, defective materials (or any combination of these), that is in contravention of the requirements of Part B of the Building Regulations at the time of construction, and that in the event of fire adversely affects or is likely to adversely affect any of the following:

The ability of people to safely evacuate the building The control of the spread of fire and smoke The structural integrity of the building Access and facilities for the fire services

#### **Owners' Management Company**

The "owners' management company" (OMC) is usually a company made up of, and controlled by, all the owners of the homes and commercial units within the development. The OMC owns the common areas of the development and is responsible for the management, maintenance and repair of those areas. It may employ a property management agent to provide management services. In conventional "build-to-sell" apartments or multi-unit developments (MUDs), membership of an OMC goes hand-in-hand with ownership of a home or property. In other words, each owner of a home or property is a member of the OMC. Each property is entitled to one vote in the OMC structure, as opposed to each member having one vote.

#### **Property Management Agent**

A person or company employed by an OMC to provide services in the management of the development. The agent acts under the instructions of the board of directors of the OMC.

#### **Active Protection**

Active protection are those systems which come into action on detection of fire e.g. fire detection and alarm system, automatically opening vent.

#### **Circulation Space**

A space (including a stairway) mainly used as a means of access between a room and an exit from the building.

#### Compartmentation

Sub-division of a building by fire-resisting walls or floors normally for the purpose of limiting fire-spread within the building.

#### **Dry Riser**

A dry riser is a normally empty pipe that can be externally connected to apressurised water source by firefighters. It is primarily a vertical pipe, although therecan be horizontal sections, intended to distribute water to multiple levels of a buildingor structure.

#### **Emergency Escape Lighting**

Lighting that provides illumination for the safety ofpeople leaving the building when the normal lighting fails.

## **Escape Route**

Route forming part of the means of escape from any point in abuilding to the final exit.

#### **Final Exit**

The termination of an escape route from a building giving direct access to a street, passageway, walkway or open space and sited to ensure the rapid dispersal of persons from the vicinity of a building so that they are no longer in danger from fire and/or smoke.

#### **Fire Compartment**

A part of a building constructed to prevent the spread of fire toor from another part of the building.

#### **Fire Damper**

Mechanical or intumescent device within a duct or ventilation opening, which is operated automatically in the event of fire, to prevent the passage of fire. (Where there is a need to prevent the passage of smoke, the fire damper needs to satisfy additional criteria.)

#### Fire Main

Water supply pipe installed in a block of flats for fire-fighting purposes, fitted with landing valves at specific points. The main may be 'dry', in which case it isfitted with inlet connections at fire and rescue service access level, so that it can be charged with water from pumping appliances. In tall blocks, the main is 'wet' and is permanently charged with water from a pressurised supply.

#### **Fire Stopping**

A seal provided to close an imperfection of fit or design tolerancebetween elements or components, to restrict the passage of fire and smoke.

#### Fire Door

A door, together with its frame, hinges, latches, hardware, glazing, and automatic self-closing device, provided for the passage of people, which, when closed, is intended to restrict the passage of fire and smoke to a predictable level of performance.

#### Intumescent strip/seal

Piece of material fitted around a doorway that when exposed to heat, expands closing any gaps around the door to stop the fire spreading for a period of time. Intumescent strips usually come with either 30 or 60minutes of resistance to fire.

#### **Means of Escape**

A route(s) provided to ensure safe egress from the premises orother locations to a place of total safety.

#### **Multi-Unit Building**

A building containing two or more dwellings and using a commonentrance.

#### **Passive Protection**

Refers to the defence against fire provided by the fabric and construction of a building.

#### **Protected Stairway**

A stairway that is adequately protected from the rest of thebuilding by fire-resisting construction.

#### Riser

A cupboard located within the communal areas of apartment buildings, containing cabling for the main services provided to the individual apartments, e.g. telephones, satellite television, electricity etc.

#### **Smoke Alarm**

Device containing within one housing all the components, exceptpossibly the energy source, for detecting smoke and giving an audible alarm.

### **Smoke Control System**

This is a system that is used to limit the migration of smoke within a building due to a fire. There are several methods to limit this migration, and some are designed to provide a tenable environment for occupants toegress the building.

#### **Storey**

Any of the parts into which a building is divided horizontally above or belowground level.

#### **Wet Riser**

A Wet riser is a supply system intended to distribute water to multiplelevels or compartments of a building, as a component of its firefighting system

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