

# So what are you doing?

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## Bradley Parker stresses the importance of fire protection in a maintenance schedule

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The tragic fire at Grenfell Tower in London in summer 2017 has focused property managers' minds on fire protection. Under the Regulatory Reform (Fire Safety) Order 2005, all residential blocks must have an up-to-date fire risk assessment (FRA).

However, this document only assesses the possible hazards in the common parts of a block of flats and recommends remedial actions. Simply having an FRA on file does not protect residents: if any recommended actions are not taken, property managers and right-to-manage freehold company directors could also be in breach of the regulations and face prosecution, fines or both in the event of a fire. Anyone with responsibility for managing a residential block must show diligence in servicing and maintaining the fire protection systems and life safety.

There is an argument that says your block's FRA should cover all areas of concern, but gaining access to each flat is an issue. As a result, full coverage will not necessarily be possible, and even FRA consultants state they are not experts.

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FRA consultancies should be up to date with BSI specifications, but can only make recommendations based on their findings. This is where highly specialised contractors, such as fire alarm engineers or lift maintenance companies, help, giving an impartial view of the recommendations and any suggested remedial work.

This is not an unusual course of action, and property managers should ensure they are aware of their fire protection obligations to residents ? and therefore only employ qualified and competent fire risk assessors.

## Taking responsibility

Two basic areas of fire protection are often not reported in FRAs: fire doors and fire-stopping. Property managers should take responsibility for ensuring that these are regularly inspected by an expert. There should also be an emphasis on passive protection, as this is frequently neglected in inspections, and even in service and maintenance reporting.

Before calling in the fire protection experts, there is a lot that property managers can do themselves. As with any life-saving product, a fire door should be checked regularly to ensure it functions correctly and is ready to use. It should be tested in the same way as emergency lighting, a smoke or fire alarm, or a fire extinguisher would be. Any slight alteration to the door or its surroundings can affect its performance. Checks should be carried out at least every six months, or more regularly depending on the traffic through the door and behaviour problems in the block; although, following consultation, RICS now advises members to inspect fire doors every three months.

Property managers who are too busy to undertake these checks should employ a fire protection specialist to do so. A maintenance checklist should be used to ensure you inspect all the items correctly, in conjunction with your asset records, and should include the following:

- Check that the gaps around the top and sides of the closed door are consistently less than 4mm. You can use a 1p coin to give a feel for scale, as this is about 3mm thick.
- Are there any intumescent seals around the door or frame, and if so are they intact with no sign of damage? These seals are usually vital to the fire door's performance, expanding if they become hot. Are there smoke seals fitted and intact to limit the spread of smoke beyond the door? In existing buildings, the fire doors are often not fitted with these seals, and they should be upgraded.
- Are the hinges fire-resistant and firmly fixed? There should be three or more of them, with no missing or broken screws.
- Check the door closes properly: open it about halfway, then let go and allow it to close by itself. Does it close firmly on the latch, without sticking on the floor or the frame? Fire doors should be fitted with a working self-closer, otherwise they could seriously compromise the fire strategy of compartmentation. However, not all fire doors need self-closers. For example, riser cupboard doors and locked fire doors on plant rooms, whereby a tradesperson entering the area needs to close and lock it on departing. Entrance doors to individual flats are often not fitted with self-closers, and the opportunity should be taken to upgrade these if they open on to a staircase or escape corridor.

## Preventing the spread of fire

This can be restricted by subdividing buildings into discrete compartments. These are separated by walls and floors of a fire-resistant construction that hinders the spread of fire from one compartment to another. Normally, all fire compartments will have a fire door and can be readily recognised by property managers with the application of a 'Fire door: keep shut' sign.

Examples of fire compartments ? apart from individual flats in the block ? are plant rooms, electrical or water risers, and escape routes such as corridors or stairwells. Property managers or an appointed expert should assess the fire compartments in their blocks and then have these areas regularly inspected. This should be carried out in conjunction with another service and maintenance discipline such as fire door inspection, as you would have to open the fire door to inspect inside the compartment, or fire alarm and emergency lighting servicing. Evacuation or stay-put policies depend on compartmentation: this reliance is currently being challenged, however, so now is the time to review the fire evacuation strategy as well.

Fire-stopping is more specialised, requiring an expert eye to understand breaches properly. Again, property managers can do a lot to identify potential problems, and regular inspection is vital. For example, managers can visually inspect the following:

- any new holes produced by building works, such as installation of an electrical cable or pipe, that are not sealed;
- existing holes that are reopened by removal of a service and not sealed; and

- damage to cladding or boarding.

Inspection after building works have been completed is recommended in order to ensure the fire-stopping is not breached. If this reveals incorrect cladding, boarding and other external systems ? or even the lack of an external system ? these should be checked by a specialist.

A fire-stop is defined in [Approved Document B, Fire Safety](#) , as 'a seal provided to close an imperfection of fit or design tolerance between elements or components, to restrict the passage of fire and smoke'. Joints between fire-separating elements such as walls or floors should be fire-stopped to maintain the continuity of resistance. Openings for timber beams, joists, purlins and rafters, and pipes, ducts, conduits or cables that pass through any part of a fire-separating element should be minimised and kept as small as possible. They should also be fire-stopped using:

- cement mortar ? although bear in mind that this can crack and fall out;
- gypsum-based plaster;
- cement- or gypsum-based vermiculite-perlite mixes;
- glass fibre, crushed rock, blast furnace slag or ceramic-based products, with or without resin binders;
- intumescent mastics; and
- proprietary fire-stopping and sealing systems.

With pipes or ducts, fire-stopping should allow thermal movement; experience shows that only proprietary ? and expensive ? fire-stop seals that fit fully around the cables or pipes are effective.

A client advised me that they have no control policy or terms and conditions stipulated in their orders to contractors to cover fire-stopping works. In such a case, property managers should act quickly to review and advise accordingly, as the contractor breaching the compartments should be responsible for their fire-stopping. If the contractor cannot carry out certified fire-stopping where compartments have been breached, they should discuss this with the client and commission a specialist to complete the works. Building owners and managers will want to know this work has been completed quickly, in the event of a fire soon after any building works.

Remember, a legal liability will attach to responsible persons, including block managers and the freeholders, so regular inspection and documenting are vital.

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## **Further information**

- Related competencies include: [Fire safety](#) , [Health and safety](#) and [Housing management and policy](#)
- This feature was taken from the RICS [Property Journal](#) (March/April 2018)
- Related categories: [Health and safety in construction](#) and [Fire and life safety](#)

## **Fire safety conferences 2020**

These two events will discuss the key fire safety considerations, latest legislation, building regulations, identify best practice and provide expert knowledge to remain at the forefront of your profession. They will be held on 11 February 2020 in [London](#) and on 17 March 2020 in [Manchester](#) .