

PRIVATE & CONFIDENTIAL

REGULATORY REFORM (FIRE SAFETY) ORDER 2005

Fire Risk Assessment

COST CENTER: Estates & Facilities



CAMBRIDGE
CITY COUNCIL

Assessed Area: Hanover Court, Coronation Street, Cambridge

Responsible Person: Will Barfield

Manager: John Conroy

Risk Assessor: Steve Cotton

Date of Inspection: Jul 17, 2020

Recommended Review Date: Jul 17, 2021

Trivial Risk

Tolerable Risk

Moderate Risk

Substantial Risk

Intolerable Risk

Executive Summary

This assessment records the fire safety measures in place at the time the assessment was conducted, and lists significant findings and a recommended appropriate remedial action. It also provides guidance for the Responsible Person on how to maintain a satisfactory standard of fire precautions within the building concerned. The subject areas concerned are;

Responsible Person

The Responsible Person should ideally hold a senior or at least a responsible position within the company and have sufficient authority to allocate and mobilise finances and to control and organise members of staff.

Manager

In the context of this report the Manager is the person who will receive all the actions found during the assessment and will allocate them to the relevant people to get the risk removed or reduced to a manageable level.

Competent Persons

Competent Persons (Fire Wardens) are employees that have had additional instruction and training in fire safety, they are there to assist the responsible person in fulfilling their statutory duties.

Managing Fire Safety

Good management of fire safety is essential to ensure that fires are unlikely to occur; that if they do occur they are likely to be controlled quickly, effectively, and safely, and that everyone should be able to escape to a place of safety easily and quickly.

Record Keeping

In the event of a fire in the workplace you may need to provide evidence to the enforcing authorities when asked that you have complied with the fire regulations. It is helpful to keep a dedicated record of all maintenance of fireprotection equipment and staff training. In all cases the quality of records may be regarded as a good indicator to the enforcing authorities of the overall quality of the fire safety management structure.

Building Occupancy

Some buildings may have two or more main uses that are not ancillary to one another. For example offices over shops from which they are independent. In such cases, each of the uses should be considered as belonging to a purpose group in its own right. In other cases and particularly in some large buildings, there may be a complex mix of uses. In such cases it is necessary to consider the possible risk that one part of a complex may have on another and special measures to reduce the risk may be necessary.

Fire Alarm

All buildings or occupied areas should have arrangements for detecting fire, where a work place is equipped with fire detectors and alarms they should be in operational order whilst the premises are occupied and be maintained and tested to comply with the relevant code of practice.

Emergency Lighting

The primary purpose of emergency escape lighting is to illuminate escape routes, but it is also required to illuminate safety equipment such as firefighting equipment, fire alarm call points, and safety signage. The size and type of your premises will determine the complexity of the emergency escape lighting required. Where installed it should be in good working order and maintained to comply with the relevant code of practice.

Compartmentation/Fire-stopping

The spread of fire within a building or area can be restricted by sub-dividing it into compartments separated from one another by walls and/or floors of fire-resisting construction. The object is twofold:

- a) to prevent rapid fire spread which could trap occupants of the building; and
- b) to reduce the chance of fires becoming large, on the bases that large fires are more dangerous, not only to occupants and fire and rescue personnel, but also to people in the vicinity of the building.

Fire Fighting Equipment

You have a responsibility for the provision of appropriate fire-fighting equipment. It is also your responsibility to check that all fire-fighting equipment is in the correct position and in satisfactory order before the premises is used.

Means of Escape

A Route or routes provided to ensure safe egress from the premises or other locations to a place of safety. The general principle for means of escape is that any person confronted by an outbreak of fire within a building can turn away from it and make a safe escape initially to a place of relative safety, a protected stair, or corridor; which should lead to a place of ultimate safety which should be clear and free of the building.

Hazards: Arson/heating/smoking/cooking/electricity

The first step in the assessment is the identification of fire hazards. In determining these hazards, account should be taken of the three most common causes of fire, which together account for around two-thirds of all fires. These are arson, smokers' materials and electrical faults. Further consideration should be given to other recognised or common causes of fire, such as heating appliances, cooking and contractors' operations.

Fixed installations

These are fire-fighting systems which are sometimes installed within the structure of the building and could include hose-reels and sprinkler systems.

Contractors & industrial processes

Carelessness by outside contractors is a common cause of fire, including many fires that result in serious financial loss. Cutting, welding and use of blow torches are particular sources of ignition,

Not all of such works are caused by outside contractors. It has been estimated, however, that perhaps 20-25% of all non-domestic fires result from on-going work', such as refurbishment, repair and construction. The Building occupants/employees should be informed as to the significant findings of assessments. The following should be displayed for the benefit of all occupants and visitors.

- A copy of the building plan indicating the means of escape (where escape routes are complex and building occupants are not familiar with the building).

- Details of any significant findings
- Details of the Responsible Person

It is considered that the building occupants/users will include employees, contractors, visitors and emergency service personnel as well as any other person who may be in and around the premises.

Ownership of the Fire Risk Assessment

Regardless of whether the fire risk assessment is carried out by, for example, staff from an outside organisation, or a third party fire risk assessor, the ultimate responsibility for the adequacy of the risk assessment rests with the “responsible person” defined by legislation as responsible for ensuring that the fire risk assessment is carried out and that the fire precautions are adequate.

Introduction

For the Responsible Person at these premises, this document provides information regarding the standard of fire safety observed, and serves as a record as required by The Regulatory Reform (Fire Safety) Order 2005 and the

Management of Health and Safety at Work Regulations 1999.

The RRO places a requirement for all responsible persons to:

- Appoint one or more competent persons, depending on the size and use of the premises, to carry out any of the preventative and protective measures required by the Order.
- Provide your employees with clear and relevant information on the risks to them identified by the fire risk assessment, and about the measures you have taken to reduce the risks and prevent fire occurring.
- Consult your employees or their elected representatives about nominating people to carry out particular roles in connection with fire safety and improving the general fire precautions in the workplace.
- Before you employ a child, provide a parent or guardian with clear and relevant information regarding the risks to that child that have been identified in the fire risk assessment, and the measures you have or propose to put in place to safeguard that child.
- Inform non-employees, such as contractors and temporary workers of the risks to them, and provide them with information as to the nominated competent persons, and the general fire precautions provided in the workplace.
- Co-operate and co-ordinate with other building or site responsible persons regarding the findings of your risk assessment which may affect the safety of their employees.
- Provide the employer of any person from an outside organisation who may be working on your premises with relevant information as to the risks to them as outlined in your risk assessment, and the preventative and protective measures taken to secure their safety.
- If you are not the employer but have any control of premise which contain more than one workplace, you are responsible for ensuring that the requirements of the Order are complied with in those parts over which you have control.
- Consider the presence of any Hazardous or dangerous substances and the risk that they present to the occupants of the building, and undertake further assessment in the form of a Dangerous Substance Explosive Atmosphere Regulations assessment (DSEAR) assessment.
- Establish a suitable means of contacting the emergency services and providing them with relevant information regarding the storage or use of dangerous substances.
- Provide appropriate information, instruction and training to you employees, during normal working hours, about the fire precautions in your premises , when they first start working for you, (induction training) and from time to time during their employment (refresher training).
- Ensure that the premises are provided with appropriate fire-fighting equipment, fire detection and warning and emergency routes and exits, and that any equipment provide is maintained by competent persons and in efficient working order, good repair and fir for purpose.
- Your employees must co-operate with you to ensure that the premises are safe from fire and its effects, and must not do anything that will place themselves or other people at risk.

RISK PROFILE

To determine the appropriate means of escape and design features of the building, for life safety, a Risk Profile has been established following the methodology detailed in the current edition of 'BS9999: Code of practice for fire safety in the design, management and use of buildings'. This calculation is based on two main factors: occupancy characteristic and fire growth rate.

Once the risk profile has been determined, the minimum package of fire safety measures that should be provided, in accordance with BS9999, such as: travel distance, stair and exit widths and level of fire alarm and detection can be established.

Establishing the Risk Profile gives scope for a more interpretative approach, on a case by case basis, which takes into account the specific features of an individual building. This is especially significant when considering the issue of escape routes and fire exits in existing premises, particularly if they are of an historical or heritage nature.

Variation of the risk profile can be achieved by looking at existing and/or additional measures, which could be provided beyond what is determined as the minimum standard by BS9999. This allows for a more flexible approach to determine the fire safety measures that are required as an alternative to following other prescriptive guidance.

Risk Profile Matrix

Occupancy Characteristic	Fire Growth Rate			
	Slow	Medium	Fast	Ultra-Fast
Occupants awake & familiar with building	A1	A2	A3	Unacceptable without the addition of an effective localized suppression system or sprinklers
Occupants who are awake and unfamiliar with the building	B1	B2	B3	
Occupants who are likely to be asleep; long-term individual occupancy	Ci1	Ci2	Ci3	
Occupants who are likely to be asleep; long-term managed occupancy	Cii1	Cii2	Cii3	
Occupants who are likely to be asleep; short-term occupancy	Ciii1	Ciii2	Ciii3	
Other	Property is outside the scope of BS9999			

Your Risk Assessment Summary

Summary of Areas Requiring Attention

Risk Level Key: Trivial Risk Tolerable Risk Moderate Risk Substantial Risk Intolerable Risk

FIRE HAZARDS AND THEIR ELIMINATION OR CONTROL

Electrical Sources of Ignition

Housekeeping

Lightning

FIRE PROTECTION MEASURES

Fire Safety Signs and Notices

Means of Escape

Means of Giving Warning in Case of Fire

Measures to Limit Fire Spread and Development

MANAGEMENT OF FIRE SAFETY

Procedures and Arrangements

Testing and Maintenance

Greater detail on the areas requiring attention can be found in the relevant sections of this document.

Summary of Significant Findings and Action Plan

Section	Risk Grading	Significant Finding and Action Required	Photo Y N	Job No / Date work complete
Electrical Sources of Ignition	Tolerable Risk	Reasonable measures taken to prevent fires of electrical origin?: No ⓘ Complete building (Complete Building) Significant Finding Electrical intake cupboards Actions Required ⊗ Electrical intake cupboards not fire resisting <i>The electrical intake cupboards opposite ground floor flat entrance doors should be kept locked shut. Appropriate signage should be applied to the outer face of</i>	N	

		<p>the doors. (Although these cupboards are not in a fully enclosed escape route, a fire in them could affect the staircases above. Enclosure in fire resistance is recommended as part of future programmed improvements).</p> <p>— complete within 6 months to reduce the risk by 100%</p>		
Lightning	Tolerable Risk	<p>Do the premises have a lightning protection system and if so does it appear satisfactory?: No</p> <p>📍 Complete building (Complete Building)</p> <p>Significant Finding</p> <p>It is noted that the building has been fitted with lightning protection equipment; however, no evidence was observed allowing the assessor to verify that the system is subject to inspection and maintenance in accordance with BS EN 62305.</p> <p>Actions Required</p> <p>⊗ Lightning protection equipment-inspection and maintenance</p> <p>Verify that the lightning protection equipment is subject to inspection and maintenance in accordance with BS EN 62305.</p> <p>— complete within 3 months to reduce the risk by 100%</p>	N	
Housekeeping	Tolerable Risk	<p>Is the standard of housekeeping to the assessed area generally adequate?: No</p> <p>📍 Complete building (Complete Building)</p> <p>Significant Finding</p> <p>Housekeeping to the premises was poor in the following areas due to storage of bicycles/items outside flats causing an obstruction and trip hazard.</p> <p>Actions Required</p> <p>⊗ Housekeeping-improve</p> <p>Housekeeping to the premises should be improved by removal of items/bicycles that may obstruct escape routes. These are outside flats 5,7,30,31,37,67,71,77,78 and on the walkway. The picture outside flat 31 is not a particular fire hazard but should be discouraged so as not to set precedent for other residents.</p> <p>— complete within 3 months to reduce the risk by 100%</p>	Y	
Means of Escape	Substantial Risk	<p>Suitable protection of escape routes including provision of fire doors/hatches including to roof voids, individual dwellings/flats, compartment doors, riser cupboard doors and risk rooms?: No</p> <p>📍 Complete building (Complete Building)</p> <p>Significant Finding</p> <p>A recent survey of flat entry doors and the door furniture revealed that the doors are non fire rated doors. The majority of doors whether notional or non-fire rated are provided with a combination of letterboxes, spyglasses, and some are fitted with Georgian wired glazing but many areas were not fire rated glazing or could not be determined. An inspection of the storage cupboard doors revealed that the doors are non fire rated and the integrity of the door set and therefore the escape route may be compromised.</p> <p>Actions Required</p> <p>⊗ Tenanted Flat entry doors-non FR</p> <p>All CCC tenant doors in a recent survey have been identified as HIGH priority as they are non fire rated flat entry doors and need to be replaced with an FD30S standard door</p> <p>— complete within 9 months to reduce the risk by 33%</p> <p>⊗ Leaseholder Flat entry doors-non FR</p> <p>All leasehold doors in a recent survey have been identified as HIGH priority as they are non fire rated flat entry doors and need to be replaced with an FD30S standard door.</p> <p>— complete within 9 months to reduce the risk by 33%</p> <p>⊗ Storage cupboard door upgrade programme</p> <p>All store cupboard doors has on escape routes have been identified as a non fire rated door and needs to be included in the current storage cupboard door</p>	N	

		<p>upgrade programme (to FD30 standard). — complete within 12 months to reduce the risk by 34%</p>		
Means of Escape	Tolerable Risk	<p>Suitable protection of escape routes including provision of fire doors/hatches including to roof voids, individual dwellings/flats, compartment doors, riser cupboard doors and risk rooms?: <i>No</i></p> <p>📍 Complete building (Complete Building)</p> <p>Significant Finding</p> <p>Ventilator breaching escape staircase.</p> <p>Actions Required</p> <p>✖ Ventilator breaching escape staircase.</p> <p><i>There is ventilator in the external wall outside flats: 17,35,42,48,50,65 & 66. Depending on its position inside the flat it may allow smoke to enter the stair in the event of a fire. It is noted that there is some ventilation to open air but this is not at the head of the stair and smoke logging may occur. It is recommended that this is investigated and if necessary the ventilation re routed or an appropriate fire rated block fitted.</i></p> <p>— complete within 9 months to reduce the risk by 100%</p>	Y	
Means of Escape	Tolerable Risk	<p>Suitable protection of escape routes including provision of fire doors/hatches including to roof voids, individual dwellings/flats, compartment doors, riser cupboard doors and risk rooms?: <i>No</i></p> <p>📍 First floor (First Floor)</p> <p>Significant Finding</p> <p>Escape route fire protection</p> <p>Actions Required</p> <p>✖ Escape route separation - not FR</p> <p><i>The external wall to flat 18 on the first floor is constructed of glass blocks. This flat is at the base of the escape staircase and was the former caretakers flat. It is believed to be an original constructional feature. An inspection in 2019 was unable to confirm that it provides the required fire resistance (integrity/insulation/stability) to protect the escape route. Options should be considered to remedy this and might include: replacing the wall or, providing a protected inner hallway or, linking fire detection in flat 18 to the flats above on the escape staircase.</i></p> <p>— complete within 9 months to reduce the risk by 100%</p>	Y	
Measures to Limit Fire Spread and Development	Substantial Risk	<p>It is considered that there is: Compartmentation of a reasonable standard including external faces of buildings: <i>No</i></p> <p>📍 Complete building (Complete Building)</p> <p>Significant Finding</p> <p>Compartmentation does not appear to be to the required fire resistance. Following fires in blocks of similar design breaches in the service riser became apparent. The design of the riser in this block is very similar and likely to present the same issues</p> <p>Actions Required</p> <p>✖ Compartmentation to provide 60 minutes fire resistance in blocks above of 6 storeys</p> <p><i>There is a requirement for compartmentation to provide 60 minutes fire resistance in blocks of 6 storeys and above.</i></p> <p>— complete within 12 months to reduce the risk by 50%</p> <p>✖ Structural investigation-breach of compartment wall/floor</p> <p><i>Further structural investigation is required to ascertain the consequence of the compartmentation breach, to establish if the following actions are required: • Type 2, 3 or 4 Fire Risk Assessment. • Change to the Fire Strategy of the building from “Stay Put” to Simultaneous Evacuation • Installation of Automatic Fire Detection System</i></p> <p>— complete within 3 months to reduce the risk by 50%</p>	N	
Measures to	Tolerable		Y	

Limit Fire Spread and Development	Risk	<p>It is considered that there is: Compartmentation of a reasonable standard including external faces of buildings: <i>No</i></p> <p>📍 Complete building (Complete Building)</p> <p>Significant Finding</p> <p>The materials on the external face of the building and/or the installation methods and materials could not be determined and appeared to be of sufficient amounts to be regarded as likely to contribute to external fire spread unless of a non combustible material and should be examined/tested and the installation confirmed. Balconies have been enclosed by residents. It is not known if these were authorised and compliant with building regulations.</p> <p>Actions Required</p> <p>⊗ External balconies-testing</p> <p><i>The materials on the external face of the building and/or the installation methods and materials could not be determined and appeared to be of sufficient amounts to be regarded as likely to contribute to external fire spread unless of a non combustible material and should be examined/tested and the installation confirmed. {Government cladding ban for combustible cladding on buildings limits materials to products achieving a European Classification of Class A1 or A2-s1,d0 when tested in accordance with BS EN 13501-1 :2007+A1:2009. This also includes balconies attached to external walls as regarded by building regulations as specified attachments and above 18m are subject to the same requirements and must achieve the same European Classification. Below this height the 'specified attachment' should be risk assessed and appropriate measures implemented.}</i></p> <p>— complete within 12 months to reduce the risk by 50%</p> <p>⊗ Resident use of balconies</p> <p><i>It was not possible for the assessor to externally check by observation the use of all the resident balcony spaces given the height of the building. In discussing this with the caretaker there are some balconies of concern (flats 15 and 20) that may present additional fire hazards. With the support of the housing management team these should be investigated and information provided to residents more generally about the usage of balconies.</i></p> <p>— complete within 6 months to reduce the risk by 50%</p>		
Fire Safety Signs and Notices	Trivial Risk	<p>Reasonable standard of fire safety signs and notices?: <i>No</i></p> <p>📍 Complete building (Complete Building)</p> <p>Significant Finding</p> <p>There was no signage indicating the use of lifts</p> <p>Actions Required</p> <p>⊗ Lift Signage-do not use</p> <p><i>Signage indicating the use of lifts should be provided. Where lifts are not to be used in the event of fire provide 'in the event of fire do not use lift' signage at each floor level and in accordance with current standards</i></p> <p>— complete within 3 months to reduce the risk by 100%</p>	Y	
Fire Safety Signs and Notices	Tolerable Risk	<p>Reasonable standard of fire safety signs and notices?: <i>No</i></p> <p>📍 Complete building (Complete Building)</p> <p>Significant Finding</p> <p>General signage review</p> <p>Actions Required</p> <p>⊗ General fire exit signage review</p> <p><i>The fire exit signage appears to be adequate. Some improved signage including pictogram style, locating specific levels and flats is to be reviewed in light of the changes to ADB (Grenfell Inquiry) through liaison with Cambridgeshire Fire & Rescue Service and residents. This review could incorporate improvements to the exit signage. For example, signage to avoid confusion regarding staircases off the 3rd/6th floor walkways which are non escape stairs is recommended (as at Kingsway flats). Fire procedure notices detailing the stay put policy are located at the entrances to the block at ground floor level and on entrances to the walkways at 3rd and 6th floors.</i></p> <p>— complete within 6 months to reduce the risk by 100%</p>	N	

Means of Giving Warning in Case of Fire	Substantial Risk	<p>Extent of automatic fire detection generally appropriate for the occupancy and fire risk?: <i>No</i></p> <p>📍 Complete building (Complete Building)</p> <p>Significant Finding</p> <p>The premises should be provided with an appropriate fire warning system to a correct grade and with a correct detection level according to the occupancy, design and use of the building</p> <p>Actions Required</p> <p>⊗ Fire warning system-correct grade/detection</p> <p><i>In light of recent findings concerning compartmentation (service risers) and flat entrance doors, subject to further investigations/survey, the premises should be provided with an appropriate fire warning system to provide early warning to residents of a fire in other parts of the building which could facilitate full evacuation of a specific area of the block.</i></p> <p>— complete within 6 months to reduce the risk by 100%</p>	N	
Procedures and Arrangements	Substantial Risk	<p>Are there adequate procedures for evacuation of any disabled people who are likely to be present?: <i>No</i></p> <p>📍 Complete building (Complete Building)</p> <p>Significant Finding</p> <p>Procedures for people with restricted mobility (PRM) and/or who are vulnerable to be confirmed through person centred fire risk assessments (PCFRA).</p> <p>Actions Required</p> <p>⊗ PRM procedures</p> <p><i>An action point from the recent specific fire risk assessment (SFRA) is to establish if there are residents who need assistance to evacuate their flat given the suspension of the stay put policy established through PCFRAs. On completion of this survey PEEPs maybe required for individual residents with copies kept in the premises information box (PIB).</i></p> <p>— complete within 6 months to reduce the risk by 100%</p>	N	
Procedures and Arrangements	Moderate Risk	<p>Are there suitable arrangements to meet the fire and rescue service on arrival and provide relevant information, including that relating to hazards to fire-fighters?: <i>No</i></p> <p>📍 Complete building (Complete Building)</p> <p>Significant Finding</p> <p>Information available for firefighters on arrival at the premises requires updating.</p> <p>Actions Required</p> <p>⊗ Information to firefighters (PIB)</p> <p><i>Ensure any premises information box (PIB) contains all information relevant to the emergency services. In particular in the case of the fire service, provide keys to the fire warning panel/s, relevant site and floor plans annotated with, or; separate details of hazards and risk rooms, as well as a vulnerability list where appropriate. This should include evacuation arrangements and risks following and identified from PCFRA's and PEEP's. The current plans date from October 2007. Once PCFRA's have been carried out any relevant information/PEEPS should be held in the PIB. Following further liaison with CFRS additional plans/information relating to the layout/numbering of Kingsway flats might be required to be held in the PIB.</i></p> <p>— complete within 6 months to reduce the risk by 100%</p>	N	
Testing and Maintenance	Tolerable Risk	<p>Monthly and annual testing routines for emergency escape lighting?: <i>No</i></p> <p>📍 Complete building (Complete Building)</p> <p>Significant Finding</p> <p>The emergency lighting installation and equipment could not be confirmed as periodically inspected, tested and maintained</p> <p>Actions Required</p> <p>⊗ Emergency Lighting Monthly Testing</p> <p><i>Ensure monthly function testing of all emergency lighting luminaires is</i></p>	N	

		<p><i>undertaken. This is to establish the switching from normal to standby supply is working correctly. Ensure a suitable system of defect reporting and repairs is in place and repairs/replacements are made in a timely fashion.</i></p> <p><i>— complete within 3 months to reduce the risk by 100%</i></p>		
Testing and Maintenance	Tolerable Risk	<p>Annual maintenance of fire extinguishing appliances?: No</p> <p>📍 Complete building (Complete Building)</p> <p>Significant Finding</p> <p>Portable fire fighting equipment in Caretakers office was not maintained in accordance with the current relevant standard and subject to an annual inspection by a qualified competent engineer.</p> <p>Actions Required</p> <p>⊗ Portable fire extinguishers-annual maintenance</p> <p><i>Portable fire fighting equipment should be maintained in accordance with the current relevant standard and subject to an annual inspection by a qualified competent engineer.</i></p> <p><i>— complete within 3 months to reduce the risk by 100%</i></p>	N	
Testing and Maintenance	Tolerable Risk	<p>Weekly and monthly testing, six-monthly inspection and annual testing of fire-fighting lifts?: No</p> <p>📍 Complete building (Complete Building)</p> <p>Significant Finding</p> <p>Firefighting lifts were not maintained and tested at prescribed intervals in accordance with current standards or records were not available to verify testing.</p> <p>Actions Required</p> <p>⊗ Firefighting/evacuation lifts-maintained and tested</p> <p><i>Where fitted ensure firefighting/evacuation lifts are maintained and tested at prescribed intervals in accordance with current standards with appropriate records being kept</i></p> <p><i>— complete within 3 months to reduce the risk by 100%</i></p>	N	
Testing and Maintenance	Trivial Risk	<p>Routine checks of final exit doors and/or security fastenings?: No</p> <p>📍 Complete building (Complete Building)</p> <p>Significant Finding</p> <p>Testing of 'push to exit' over rides (green boxes)</p> <p>Actions Required</p> <p>⊗ Testing of 'push to exit' over rides (green boxes)</p> <p><i>These are located in the refuse rooms and should be regularly tested. Monthly testing with the emergency lighting is suggested.</i></p> <p><i>— complete within 6 months to reduce the risk by 100%</i></p>	N	

⚠ Assessment Details

URN 1367

Overall Building Risk Rating Substantial Risk

Assessed building OR area name OR No Estates & Facilities > Hanover Court, Coronation Street, Cambridge

Risk Assessor Steve Cotton
✉ icenifiresafety@btinternet.com

Date of Assessment Jul 17, 2020

Validated By Renier Barnard

Date of Validation Sep 23, 2020

📁 Client Details

Name Cambridge City Council

Address 1 The Guildhall

Town Cambridge

Post Code

🏠 Premises Description

Number of Floors Ground + seven floors

Approximate floor area NA

Building Construction Constructed approx 1968 - concrete block and beam + brick. Flat asphalt roof. There is no external cladding only brick walls. The building would have been built to design codes at that time. It is not thought that there have been any significant upgrades from a fire safety perspective other than to fit a smoke alarm in each flat. See comment below re flat entrance doors.

Building description: There are 78 one/two bedroom flats which form separate fire compartments with service risers running the full height of the building believed to contain bathroom ventilation, SVP's, electrics, water and gas pipework. There is access to these at ground floor level opposite flat entrances and possibly from other locations in the block. From the recent fires in this and other similar blocks of flats (Kingsway) it is not thought these are adequately fire separated from the flats themselves (see sections below). Flats have recessed balconies constructed of non combustible materials. Flat entrance doors are not the original installations and have also been replaced by leaseholders. From a sample survey in 2019 none of the doors in Hanover Court are FD30S units.

There is a full length walkway at 3rd and 6th floor levels with a full height staircase at each end of the block with 60m between staircases. There are three sets of short staircases off each walkway.

Ground floor flats have access to the front and rear of the block. First floor flats are accessed (in pairs) by individual external single storey staircases at the rear of the building. 2nd and 4th floor flats are accessed off the 3rd floor walkway. 5th and 7th floor flats are accessed off the 6th floor walkway - this arrangement means a pair of flats can be reached by going either down a level or up a level from the same entry point off the walkway. There is an escape staircase at each end of the block providing alternative means of escape for most but not all flats. There is also a pair of flats at each level off these staircases.

The walkway is undivided and quite deep (at least 3m) with no dedicated down stands to channel smoke away. The walkway is open on one side but also partially enclosed by storage cupboards. There is a passenger lift at the north end of the block - it is not an emergency evacuation lift but has controls for fire fighters to use it in the event of a fire.

There is a refuse chute at each end of the 3rd and 6th floor off the walkways; off the south staircase with its own access landing setting this facility back and away from the block. The other chute is at the north end of the walkway near the lift. Both chutes are contained in a full height shaft with bins at the base in a secure storage area. Resident storage cupboards are locked in the escape routes on each walkway and on most landings. There could also be riser cupboards on the walkways but the assessor was unable to confirm this.

Hanover Court runs parallel with neighbouring block, Princess Court. There is a green space in between along with a community room (separate FRA). A small caretakers office is located on the ground floor with a storage area at the rear. There is good access to the block for the fire service - a high reach appliance could be used on some areas of the block but not all.

Main use of Building General needs block of flats.

Disabled / vulnerable persons	Potentially some residents will be disabled/vulnerable.
Other persons at risk	The residents living in the block. A caretaker is employed to be on site Monday to Friday. There are visitors to the block and other persons who need to access it for various purposes.
Fire loss experience	There have been flat fires in these blocks over the years with some smaller arson fires.
Other relevant information	There are 78 1/2 bedroom flats in the block. Most are Council tenants but a number of flats have been purchased and are leasehold residents.
Fire Service station serving site / estimated travel time	Approx 5mins from Parkside (24hr crewed station) or approx 12-15mins from the training facility at Milton. High rise PDA for 5 floors and above is mobilised to this block.
Additional sources of oxygen or flammable gases stored on site	None
Relevant Fire Safety Legislation	Fire Safety Order 2005 - Communal Areas. Housing Act 2004 for flats and internal areas.
Legislation Enforced by	Cambridgeshire Fire & Service Service and Environmental Health (CCC)
Enforcement Notice issued by Fire Authority	NA

Assessment Details

Assessor	Stephen Cotton MIFireE
Date of Assessment	17.07.2020
Date of previous assessment	03.07.2019
Date for review	17.07.2021
Management area of responsibility	Estates & Facilities
Survey type	Type 1 - PAS 79. New initial
"The Risk Profile" for this building has been calculated as	Private storage areas. Roof/plant not accessed or individual dwellings. Riser cupboards. The exact layouts of the flats are not known and may vary in their design.
Areas not accessible during visit	<p>A specific fire risk assessment (SFRA) was carried out in May- June 2020 following at Kingsway flats. The SFRA included Hanover Court as the design is very similar and the same issues have been highlighted in previous FRA's and by other fires. The assessment focused on flat entrance doors and service risers. This assessment is referred to in other the sections of this report. A copy of the SFRA can be found in 'Evidence'.</p> <p>There are garages at the end of the block - these are separate and do not form part of this assessment.</p> <p>There is a Fire Risk Management Group within Cambridge City Council to ensure delivery of its Fire Safety Policy and Fire Risk Management Strategy. Fire risk assessments are part of the strategy to achieve compliance with the FSO.</p> <p>In carrying out this assessment relevant guidance has been considered including 'Fire safety in purpose built blocks of flats' and current updates from MHCLG.</p>
Other relevant information	-

Fire Prevention Strategy

Fire Evacuation Strategy	At time of assessment there is a stay put policy. However, further investigations regarding the service risers and installation of FD30S flat entrance doors will be undertaken following the Kingsway fire and the SFRA mentioned above. This may result in changes to the evacuation strategy and an interim early warning system (most likely linked fire detection between flats off a common riser and/or staircase) might be installed.
AFD ; Warning System	There is currently no fire alarm or detection in the communal areas. It is believed flats are fitted with a smoke alarm in the hallway (LD3). A heat detector will be installed in the kitchen areas through 2020-21- if these are open plan areas then this will achieve LD2 coverage.
Escape Routes	<p>Escape from ground floor flats is either from their front or rear access doors.</p> <p>Means of escape from 1st floor flats is via a short open air landing and the external staircases.</p> <p>Escape for 2nd, 3rd, 4th, 5th, 6th and 7th floors is via the walkways at 3rd and 6th floor levels. There is a full height staircase at both ends of the block providing alternative escape routes once the walkways are reached. There is a travel distance of 60m between the main escape staircases. The</p>

exception is for the pairs of flats located off the main escape staircases where this provides single direction directly down the staircase (in theory occupants could travel upwards to access the walkway and the alternative staircase but this is not ideal if there was smoke in the staircase area). This is an option for 4th and 7th floor occupants when descending their staircase, i.e. to go to the other staircase once a walkway is reached. There is also an initial dead end for flats at the end of each walkway but it is only 3m to the escape staircase and a well ventilated space so acceptable.

The main escape staircases are mostly open with no glazing but also no separation at 3rd and 6th floors (walkway level). At the upper most level (7th floor) there is no vent at ceiling/roof level (although there is a skylight that potentially could be upgraded).

The depth of the walkway which is quite deep (3m + with no down stands) and, along with partial enclosure, may result in (lateral) smoke logging of the escape route. This may occur by either fire emerging from windows below the walkway or from a flat entrance way if the door is not closed. The windows below the walkways are believed to be bedrooms so likely less a risk than the kitchen/living room spaces that open onto the balconies. This also means the higher fire risk rooms are on the opposite face of the building to the escape routes and may have been an intentional part of the design when built.

The walkway provides alternative means of escape but is not a fully 'open balcony' approach and protection of the route is not currently afforded by fire resistant flat entrance doors and storage cupboards.

The layout of the staircases to the upper floors and off the walkways mean they are in a vertical channel running the full height of the building which also encourages any smoke and heat to travel upwards affecting the escape route. In mitigation there are no windows opening onto any of the staircases and the flat entrance doors are being replaced with FD30S units through 2020-21.

Escape routes are generally sterile with non combustibile linings (Believed to be Class O/B-s3,d2).

It will be important to maintain the fire doors in good condition and to ensure the self closing devices are not disconnected by residents. This will be vital to protecting the escape routes and provide occupants the opportunity to escape should they choose to or if they are at risk and need to leave their flat. Changes to fire safety legislation will incorporate recommendations from MHCLG (Grenfell recommendations/Hackitt review) requiring these doors to be regularly inspected by the responsible person.

There are no final exit doors at ground level just openings to the stairways.

Emergency Escape Lighting	Emergency lighting is installed throughout the communal areas and appears to be in accordance with BS 5266.
Fire Exit Directional Signage	Directional fire exit signage is provided from the 3rd floor and 6th floor walkways with some additional directional signs on the stairs but not at all levels. This is illuminated by the accommodation lighting. Signage is to be reviewed along with flat numbering in light of the Grenfell Inquiry recommendations and changes to ADB.
Fire Lobbies	There are no fire lobbies
Smoke ventilation AOV	There is no AOV
Dry Riser	Dry riser outlets are installed on the 3rd & 6th floor walkways near the lift and on the refuse chute landing with the inlets at ground level directly below. The hydrants to supply the risers are located in Union Road and Coronation Street. A fire appliance can get within 18-25m of the DR inlet.
Type; Number of Fire Extinguishers	Fire extinguishers are not provided in the communal areas.

⊕ Scope of Assessment

-

🏠 Contact Details

Identity of Client

-

Any persons with responsibility for fire safety within the premises (refer to artificial 5 of RRF50)

-

Telephone number

-

➤ Evidence

The Evidence table below shows the documents associated with the Unit that this assessment belongs to. Showing the version and expiry date.

Total **2** items.

Category	Document	Contractor	Expiry Date	Version
FRA Addendum	FRA Supporting Document	Steve Cotton	-	1
Strategy / Policy	Fire Strategy Document	Steve Cotton	-	1

Your Risk Assessment Grading

The following risk level estimator is based on a general health and safety risk level estimator as detailed in BS 8800:

Risk Matrix		LIKELIHOODS			
		Low 1	Moderate 2	Extreme 3	
CONSEQUENCES	High Harm 3	Moderate Risk 3	<input checked="" type="checkbox"/> Substantial Risk 6	Intolerable Risk 9	
	Medium Harm 2	Tolerable Risk 2	Moderate Risk 4	Substantial Risk 6	
	Low Harm 1	Trivial Risk 1	Tolerable Risk 2	Moderate Risk 3	

Taking into account the pas 79 fire prevention measures observed at the time of this risk assessment, it is considered that the hazard from pas 79 fire (likelihood of pas 79 fire) at these premises is:

None Low Moderate Extreme

In this context, a definition of the above terms is as follows:

Low: Outbreak of fire unlikely to result in serious injury or death of any occupant (other than an occupant sleeping in a room in which a fire occurs).

Moderate: Outbreak of fire could foreseeably result in injury (including serious injury) of one or more occupants, but it is unlikely to involve multiple fatalities.

Extreme: Significant potential for serious injury or death of one or more occupants.

Taking into account the nature of the building and the occupants, as well as the pas 79 fire protection and procedural arrangements observed at the time of this pas 79 fire risk assessment, it is considered that the consequences for life safety in the event of pas 79 fire would be:

None High Harm Medium Harm Low Harm

In this context, a definition of the above terms is as follows:

High Harm: Lack of adequate controls applied to one or more significant fire hazards, such as to result in significant increase in likelihood of fire.

Medium Harm: Normal fire hazards (e.g. potential ignition sources) for this type of occupancy, with fire hazards generally subject to appropriate controls (other than minor shortcomings).

Low Harm: Unusually low likelihood of fire as a result of negligible potential sources of ignition.

Accordingly, it is considered that the risk to life from pas 79 fire at these premises is:

None Trivial Risk Tolerable Risk Moderate Risk Substantial Risk Intolerable Risk

A suitable risk-based control plan should involve effort and urgency that is proportional to risk:

Risk level	Action and timescale
Trivial Risk	No action is required and no detailed records need be kept.
Tolerable Risk	No major additional fire precautions required. However, there might be a need for reasonably practicable improvements that involve minor or limited cost.
Moderate Risk	It is essential that efforts are made to reduce the risk. Risk reduction measures, which should take cost into account, should be implemented within a defined time period. Where moderate risk is associated with consequences that constitute extreme harm, further assessment might be required to establish more precisely the likelihood of harm as a basis for determining the priority for improved control measures.
Substantial Risk	Considerable resources might have to be allocated to reduce the risk. If the premises are unoccupied, it should not be occupied until the risk has been reduced. If the premises are occupied, urgent action should be taken.
Intolerable Risk	Premises (or relevant area) should not be occupied until the risk is reduced.

Assessment Report

FIRE HAZARDS AND THEIR ELIMINATION OR CONTROL

🔌 Electrical Sources of Ignition

Complete building (Complete Building) **2 x 1 = 2 | Tolerable Risk**

1 / 1

❌ Reasonable measures taken to prevent fires of electrical origin? **No**

👁 Finding

👤 SC ⌚ Aug 16, 2020, 12:45:24 PM

Electrical intake cupboards

Likelihood: Low **Consequence: Medium Harm**

✅ Tasks **1**

Electrical intake cupboards not fire resisting

The electrical intake cupboards opposite ground floor flat entrance doors should be kept locked shut. Appropriate signage should be applied to the outer face of the doors.

(Although these cupboards are not in a fully enclosed escape route, a fire in them could affect the staircases above.

Enclosure in fire resistance is recommended as part of future programmed improvements).

Location Complete building (Estates & Facilities, Hanover Court, Coronation Street, Cambridge)

Low Priority — complete within 6 months to reduce the risk by 100% 👤 SC

Assigned Users 👤 John Conroy

✅ Fixed installation periodically inspected and tested? **Yes**

✅ Portable appliance testing (where appropriate) carried out? **N/A**

✅ Suitable policy regarding the use of personal electrical appliances? **N/A**

✅ Suitable limitation of trailing leads and adapters? **N/A**

Fixed wire test: August 2019

🚭 Smoking

Complete building (Complete Building)

1 / 1

✅ Reasonable measures taken to prevent fires as a result of smoking? **Yes**

✅ Smoking prohibited on the premises? **Yes**

✅ Smoking prohibited in appropriate areas? **N/A**

✅ Suitable arrangements for those who wish to smoke? **N/A**

✅ This policy appeared to be observed at time of inspection? **Yes**

'No smoking' signs are located at the main entrances to the building and at access points to the first floor landings. They are also displayed on the walkways at 3rd and 6th floors.

🔥 Arson

Complete building (Complete Building)

1 / 1

✅ Does basic security against arson by outsiders appear reasonable? **Yes**

✅ Is there an absence of unnecessary fire load in close proximity to the premises or available for ignition by outsiders?

Yes

There is open access to these flats, although the refuse/bin rooms are limited in their availability to residents and locked at other times.

Storage cupboards were secure and fully enclosed (unlike at Kingsway).

Some stored items on a few landings could be a source of combustibles but this is generally low risk.

Anecdotally arson is not a significant issue.

🔥 Portable Heaters and Heating Installations

Complete building (Complete Building)

1 / 1

- ✔ Is the use of portable heaters avoided as far as practicable? N/A
- ✔ If portable heaters are used: Is the use of the more hazardous type (e.g. radiant bar fires or lpg appliances) avoided? N/A
- ✔ If portable heaters are used: Are suitable measures taken to minimize the hazard of ignition of combustible materials? N/A
- ✔ Are fixed heating installations subject to regular maintenance? N/A

There is no heating in the communal areas

🔥 Cooking

Complete building (Complete Building)

1 / 1

- ✔ Are reasonable measures taken to prevent fires as a result of cooking? N/A
- ✔ More specifically: Filters changed and ductwork cleaned regularly? NA
- ✔ More specifically: Suitable extinguishing appliances available? N/A

There are no cooking facilities in the communal areas.

⚡ Lightning

Complete building (Complete Building) 2 x 1 = 2 | Tolerable Risk

1 / 1

- ✘ Do the premises have a lightning protection system and if so does it appear satisfactory? No

👁 Finding

👤 SC ⌚ Jul 23, 2020, 8:11:59 PM

It is noted that the building has been fitted with lightning protection equipment; however, no evidence was observed allowing the assessor to verify that the system is subject to inspection and maintenance in accordance with BS EN 62305.

Likelihood: Low Consequence: Medium Harm

✔ Tasks 1

- Lightning protection equipment-inspection and maintenance

Verify that the lightning protection equipment is subject to inspection and maintenance in accordance with BS EN 62305.

Location Complete building (Estates & Facilities, Hanover Court, Coronation Street, Cambridge)

Medium Priority — complete within 3 months to reduce the risk by 100% 👤 SC

Assigned Users 👤 John Conroy

Lightning equipment tested: 21.06.2019

Test overdue.

🧹 Housekeeping

Complete building (Complete Building) 2 x 1 = 2 | Tolerable Risk

1 / 1

- ✘ Is the standard of housekeeping to the assessed area generally adequate? No

👁 Finding

👤 SC ⌚ Jul 26, 2020, 12:40:31 PM

Housekeeping to the premises was poor in the following areas due to storage of bicycles/items outside flats causing an obstruction and trip hazard.

Likelihood: Low Consequence: Medium Harm

✔ Tasks 1


- Housekeeping-improve

Housekeeping to the premises should be improved by removal of items/bicycles that may obstruct escape routes.

These are outside flats 5,7,30,31,37,67,71,77,78 and on the walkway.

The picture outside flat 31 is not a particular fire hazard but should be discouraged so as not to set precedent for other residents.

Location Complete building (Estates & Facilities, Hanover Court, Coronation Street, Cambridge)

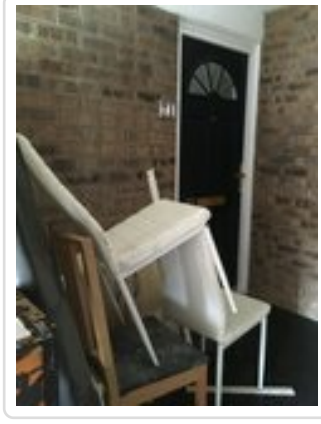
Medium Priority — complete within 3 months to reduce the risk by 100%  SC

Assigned Users  John Conroy

 Images **9**



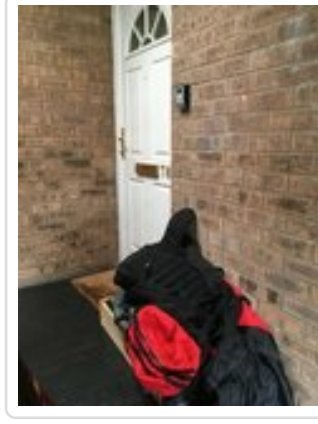
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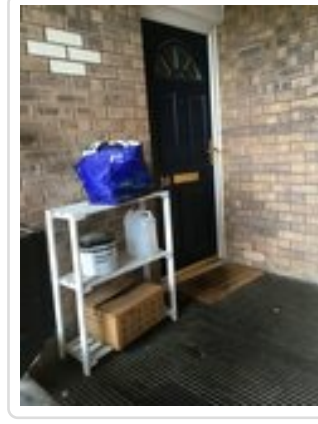
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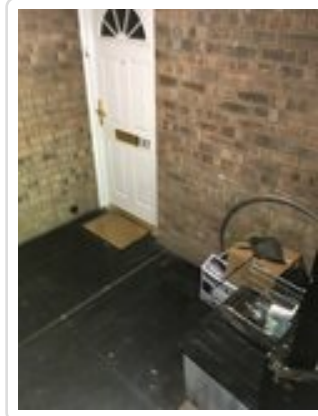
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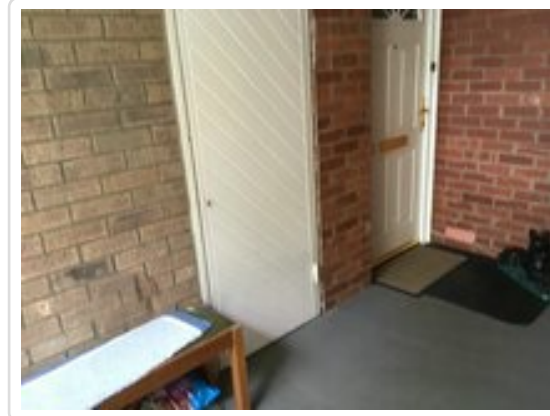
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— Jul 23, 2020, 8:30:39 PM



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— Jul 23, 2020, 8:30:39 PM



IMG_6447
— Jul 23, 2020, 8:30:39 PM



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— Jul 23, 2020, 8:30:39 PM

- ✔ **More specifically do combustible materials appear to be separated from ignition sources?** **Yes**
- ✔ **More specifically is there an avoidance of an unnecessary accumulation of combustible materials or waste?** **Yes**
- ✔ **More specifically is there appropriate storage of hazardous materials?** **Yes**
- ✔ **More specifically is there an avoidance of inappropriate storage of combustible materials?** **Yes**

As can be seen from the attached images there are either bikes or items of storage outside some flat entrance doors. Application of the Council's zero tolerance policy as per other flats is recommended although acknowledged as difficult to implement in some instances.

 **Hazards Introduced By Outside Contractors and Building Works**

Complete building (Complete Building)

1 / 1

- ✔ **Are fire safety conditions imposed on outside contractors?** **Yes**
- ✔ **Is there satisfactory control over works carried out on the premises by outside contractors (including “hot work” permits)?** **Yes**
- ✔ **If there are in-house maintenance personnel, are suitable precautions taken during “hot work”, including use of “hot work” permits?** **Yes**

Contractors are subject to CCC's Fire Safety Policy.

 **Dangerous Substances**

Complete building (Complete Building)

1 / 1

- ✔ **Are the general fire precautions adequate to address the hazards associated with dangerous substances used or stored within the premises?** **N/A**
- ✔ **If the above applies, has a specific risk assessment been carried out, as required by the Dangerous Substances and Explosive Atmospheres Regulations 2002?** **N/A**

There were no dangerous substances present on site.

The building has Estate Safety checks in place (by Caretaker) which includes the reduction and elimination of fire hazards.

Generally housekeeping is very good with bicycles being the main issue on escape routes/outside flat entrance ways and some instances of minor storage.

Re bicycles - Where there is plenty of space such as on walkways and underneath staircases this is not so much a concern compared to the small stairways off the main walkway that need to be monitored and managed in accordance with the Council's zero tolerance policy

FIRE PROTECTION MEASURES

✘ **Suitable protection of escape routes including provision of fire doors/hatches including to roof voids, individual dwellings/flats, compartment doors, riser cupboard doors and risk rooms?** **No**

👁 Finding

👤 SC ⌚ Aug 12, 2020, 7:52:26 AM

A recent survey of flat entry doors and the door furniture revealed that the doors are non fire rated doors. The majority of doors whether notional or non-fire rated are provided with a combination of letterboxes, spyglasses, and some are fitted with Georgian wired glazing but many areas were not fire rated glazing or could not be determined. An inspection of the storage cupboard doors revealed that the doors are non fire rated and the integrity of the door set and therefore the escape route may be compromised.

Likelihood: Moderate **Consequence: High Harm**

✔ Tasks **3**

Tenanted Flat entry doors-non FR

All CCC tenant doors in a recent survey have been identified as HIGH priority as they are non fire rated flat entry doors and need to be replaced with an FD30S standard door

Location Complete building (Estates & Facilities, Hanover Court, Coronation Street, Cambridge)

High Priority — complete within 9 months to reduce the risk by 33% 👤 SC

Assigned Users 👤 John Conroy

Leaseholder Flat entry doors-non FR

All leasehold doors in a recent survey have been identified as HIGH priority as they are non fire rated flat entry doors and need to be replaced with an FD30S standard door.

Location Complete building (Estates & Facilities, Hanover Court, Coronation Street, Cambridge)

High Priority — complete within 9 months to reduce the risk by 33% 👤 SC

Assigned Users 👤 John Conroy

Storage cupboard door upgrade programme

All store cupboard doors has on escape routes have been identified as a non fire rated door and needs to be included in the current storage cupboard door upgrade programme (to FD30 standard).

Location Complete building (Estates & Facilities, Hanover Court, Coronation Street, Cambridge)

Medium Priority — complete within 12 months to reduce the risk by 34% 👤 SC

Assigned Users 👤 John Conroy

✔ **Suitable fire precautions for all inner rooms?** **N/A**

✔ **Escape routes unobstructed?** **Yes**

✔ **Is it considered that the premises are provided with reasonable means of escape in case of fire?** **Yes**

✔ **Adequate design of escape routes?** **Yes**

✔ **Adequate provision of exits?** **Yes**

✔ **Exits easily and immediately openable where necessary?** **Yes**

✔ **Fire exits open in direction of escape where necessary?** **N/A**

✔ **Avoidance of sliding or revolving doors as fire exits where necessary?** **N/A**

✔ **Satisfactory means for securing exits?** **Yes**

✔ **Reasonable distances of travel: Where there is a single direction of travel?** **Yes**

✔ **Reasonable distances of travel: Where there are alternative means of escape?** **Yes**

✔ **It is considered that the premises are provided with reasonable arrangements for means of escape for disabled people.** **N/A**

✘ **Suitable protection of escape routes including provision of fire doors/hatches including to roof voids, individual dwellings/flats, compartment doors, riser cupboard doors and risk rooms?** **No**

👁 Finding

👤 SC ⌚ Aug 13, 2020, 7:42:58 AM

Ventilator breaching escape staircase.

Likelihood: Low **Consequence: Medium Harm**


✔ Tasks **1**

Ventilator breaching escape staircase.

There is ventilator in the external wall outside flats: 17,35,42,48,50,65 & 66. Depending on its position inside the flat it may allow smoke to enter the stair in the event of a fire. It is noted that there is some ventilation to open air but this is not at the head of the stair and smoke logging may occur.

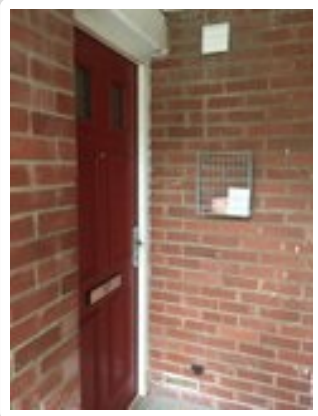
It is recommended that this is investigated and if necessary the ventilation re routed or an appropriate fire rated block fitted.

Location Complete building (Estates & Facilities, Hanover Court, Coronation Street, Cambridge)

Medium Priority — complete within 9 months to reduce the risk by 100%  SC

Assigned Users  John Conroy

Images 7



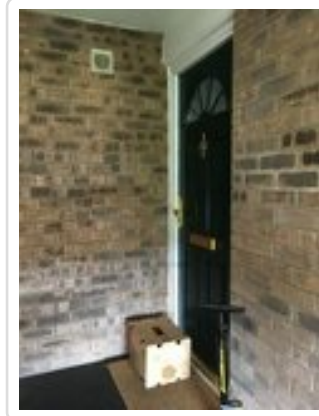
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— Jul 25, 2020, 11:40:13 AM



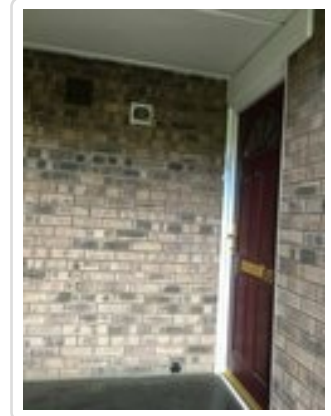
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— Jul 25, 2020, 11:32:11 AM



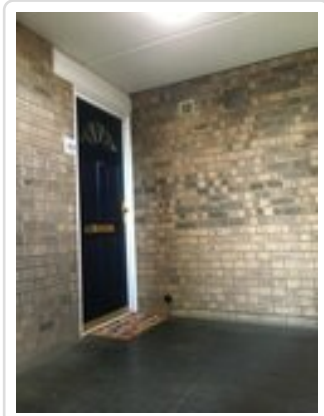
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— Jul 25, 2020, 11:32:10 AM





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— Jul 25, 2020, 11:32:09 AM

First floor (First Floor) **2 x 1 = 2 | Tolerable Risk**

3 / 3

✘ Suitable protection of escape routes including provision of fire doors/hatches including to roof voids, individual dwellings/flats, compartment doors, riser cupboard doors and risk rooms? No

Finding

 SC  Jul 26, 2020, 12:30:54 PM

Escape route fire protection

Likelihood: Low **Consequence: Medium Harm**

Tasks 1


Escape route separation - not FR

The external wall to flat 18 on the first floor is constructed of glass blocks. This flat is at the base of the escape staircase and was the former caretakers flat. It is believed to be an original constructional feature.

An inspection in 2019 was unable to confirm that it provides the required fire resistance (integrity/insulation/stability) to protect the escape route.

Options should be considered to remedy this and might include: replacing the wall or, providing a protected inner hallway or, linking fire detection in flat 18 to the flats above on the escape staircase.

Location First floor (Estates & Facilities, Hanover Court, Coronation Street, Cambridge)

Medium Priority — complete within 9 months to reduce the risk by 100%  SC

Assigned Users  John Conroy

Images 1



IMG_4521

— Jul 26, 2020, 12:30:54 PM

The escape for most of the flats above ground floor is via generally semi-open routes which provides venting for smoke, however, also see comment above re 'escape routes' regarding impact of a fire on these routes. This includes the staircases from ground to first floor flats and those serving 2nd/4th and 5th/7th floor flats off the walkways at 3rd and 6th floors. The main staircases at each end running the full height of the building are open at all levels except the head of the stair. The walkways are also ventilated at each end of the block.

There are skylights at the head of the escape stairs which appear to be openable. These could be investigated further to provide smoke ventilation by adaptation or modification to enable them to be opened manually (remotely) or by AOV.

The travel distances on the walkways are acceptable, however, they are undivided. These escape routes are neither enclosed corridors or fully open balconies (as per technical guidance). There might be some benefit in providing doors across the walkway where the short staircases emerge on the walkway but given smoke from a fire below could affect both sides of the partition it is not clear if these would be of use compared to fire detection.

A programme is in place (2020-21: delayed by Covid-19) to replace all tenant flat entrance doors and to address leasehold doors. There are no other openings onto the escape routes which also helps to reduce the likelihood of them being affected by a fire. It is also proposed to replace store cupboard doors with FD30 standard doors which will also reduce the opportunity for arson.

The caretakers office is a very small space with acceptable single direction travel distance.

🔒 Measures to Limit Fire Spread and Development

Complete building (Complete Building) **3 x 2 = 6 | Substantial Risk**

1 / 2

- ✔ It is considered that there is: Reasonable limitation of linings that might promote fire spread **Yes**
- ✔ As far as can reasonably be ascertained, fire dampers are provided as necessary to protect critical means of escape against passage of fire, smoke and combustion products in the early stages of a fire? **N/A**
- ✘ It is considered that there is: Compartmentation of a reasonable standard including external faces of buildings **No**

👁 Finding

👤 SC ⌚ Aug 11, 2020, 5:45:42 PM

Compartmentation does not appear to be to the required fire resistance. Following fires in blocks of similar design breaches in the service riser became apparent. The design of the riser in this block is very similar and likely to present the same issues

Likelihood: Moderate **Consequence: High Harm**

✔ Tasks 2

- Compartmentation to provide 60 minutes fire resistance in blocks above of 6 storeys

There is a requirement for compartmentation to provide 60 minutes fire resistance in blocks of 6 storeys and above.

Location Complete building (Estates & Facilities, Hanover Court, Coronation Street, Cambridge)

High Priority — complete within 12 months to reduce the risk by 50% 👤 SC

Assigned Users 👤 John Conroy

- Structural investigation-breach of compartment wall/floor

Further structural investigation is required to ascertain the consequence of the compartmentation breach, to establish if the following actions are required:

- Type 2, 3 or 4 Fire Risk Assessment.
- Change to the Fire Strategy of the building from "Stay Put" to Simultaneous Evacuation
- Installation of Automatic Fire Detection System

Location Complete building (Estates & Facilities, Hanover Court, Coronation Street, Cambridge)

High Priority — complete within 3 months to reduce the risk by 50% 👤 SC

Assigned Users 👤 John Conroy

✖ It is considered that there is: **Compartmentation of a reasonable standard including external faces of buildings** No

👁 Finding

👤 SC 🕒 Jul 25, 2020, 12:29:40 PM

The materials on the external face of the building and/or the installation methods and materials could not be determined and appeared to be of sufficient amounts to be regarded as likely to contribute to external fire spread unless of a non combustible material and should be examined/tested and the installation confirmed.

Balconies have been enclosed by residents. It is not known if these were authorised and compliant with building regulations.

Likelihood: Low **Consequence: Medium Harm**

✅ Tasks 2

External balconies-testing

The materials on the external face of the building and/or the installation methods and materials could not be determined and appeared to be of sufficient amounts to be regarded as likely to contribute to external fire spread unless of a non combustible material and should be examined/tested and the installation confirmed. {Government cladding ban for combustible cladding on buildings limits materials to products achieving a European Classification of Class A1 or A2-s1,d0 when tested in accordance with BS EN 13501-1 :2007+A1:2009. This also includes balconies attached to external walls as regarded by building regulations as specified attachments and above 18m are subject to the same requirements and must achieve the same European Classification. Below this height the 'specified attachment' should be risk assessed and appropriate measures implemented.}

Location Complete building (Estates & Facilities, Hanover Court, Coronation Street, Cambridge)

Medium Priority — complete within 12 months to reduce the risk by 50% 👤 SC

Assigned Users 👤 John Conroy

Resident use of balconies

It was not possible for the assessor to externally check by observation the use of all the resident balcony spaces given the height of the building. In discussing this with the caretaker there are some balconies of concern (flats 15 and 20) that may present additional fire hazards. With the support of the housing management team these should be investigated and information provided to residents more generally about the usage of balconies.

Location Complete building (Estates & Facilities, Hanover Court, Coronation Street, Cambridge)

Medium Priority — complete within 6 months to reduce the risk by 50% 👤 SC

Assigned Users 👤 John Conroy

🖼 Images 4



IMG_6367
— Jul 25, 2020, 12:29:40 PM



IMG_6368
— Jul 25, 2020, 12:29:40 PM



IMG_6456
— Jul 25, 2020, 12:28:38 PM



IMG_6460
— Jul 25, 2020, 12:28:38 PM

A flat fire in Hanover Court early in 2020 and in block 4 at Kingsway flats in May 2020 resulted in either smoke and/or fire spread through the service riser. The outcomes of a subsequent specific FRA (see 'Evidence') included a review of the stay put policy, installation of linked early warning of fire and further surveys of service risers in all blocks at Kingsway flats and Hanover/Princess Courts (as the buildings are from the same era and very similar in design) to provide solutions to the lack of fire resistance/compartmentation.

This work is being treated as high priority by CCC alongside upgrading flat entrance doors to FD30S standard.

Resident balconies are not constructed of combustible materials although some are enclosed - see recommendation above.

Escape routes are mostly sterile with non combustible linings (Believed to be Class O/B-s3,d2).

💡 Emergency Escape Lighting

✔ Reasonable standard of emergency escape lighting system provided? **Yes**

Emergency lighting is provided throughout the communal areas and appeared to be in working order. The assessor was not able to verify its effectiveness at time of assessment.

Annual test: May 2020.

It is not certain if monthly testing is being carried out - see section below

🔗 Fire Safety Signs and Notices

Complete building (Complete Building) **1 x 1 = 1 | Trivial Risk**

1 / 2

✘ Reasonable standard of fire safety signs and notices? **No**

👁 Finding

👤 SC 🕒 Jul 26, 2020, 12:45:37 PM

There was no signage indicating the use of lifts

Likelihood: Low **Consequence: Low Harm**

✔ Tasks **1**

Lift Signage-do not use

Signage indicating the use of lifts should be provided. Where lifts are not to be used in the event of fire provide 'in the event of fire do not use lift' signage at each floor level and in accordance with current standards

Location Complete building (Estates & Facilities, Hanover Court, Coronation Street, Cambridge)

Low Priority — complete within 3 months to reduce the risk by 100% 👤 SC

Assigned Users 👤 John Conroy

🖼 Images **2**



IMG_6432
— Jul 26, 2020, 12:45:37 PM



IMG_6437
— Jul 26, 2020, 12:45:37 PM

Complete building (Complete Building) **2 x 1 = 2 | Tolerable Risk**

2 / 2

✘ Reasonable standard of fire safety signs and notices? **No**

👁 Finding

👤 SC 🕒 Aug 13, 2020, 7:47:50 AM

General signage review

Likelihood: Low **Consequence: Medium Harm**

✔ Tasks **1**

General fire exit signage review

The fire exit signage appears to be adequate. Some improved signage including pictogram style, locating specific levels and flats is to be reviewed in light of the changes to ADB (Grenfell Inquiry) through liaison with Cambridgeshire Fire & Rescue Service and residents.

This review could incorporate improvements to the exit signage. For example, signage to avoid confusion regarding staircases off the 3rd/6th floor walkways which are non escape stairs is recommended (as at Kingsway flats).

Fire procedure notices detailing the stay put policy are located at the entrances to the block at ground floor

level and on entrances to the walkways at 3rd and 6th floors.

Location Complete building (Estates & Facilities, Hanover Court, Coronation Street, Cambridge)

Medium Priority — complete within 6 months to reduce the risk by 100% SC

Assigned Users John Conroy

Fire exit signage incorporates pictogram and text format. The position and location of signage is generally satisfactory in terms of compliance and give the layout/design of the blocks but improvements could be made.

(Note. The wording on the DR inlet box (north end of block) is incorrect as it states it is an outlet).

Means of Giving Warning in Case of Fire

Complete building (Complete Building) **3 x 2 = 6 | Substantial Risk**

1 / 1

✔ Reasonable manually operated electrical fire alarm system provided? **N/A**

✔ Automatic fire detection provided- Throughout the Premises? **N/A**

✔ Automatic fire detection provided- Part of the premises only? **N/A**

✘ Extent of automatic fire detection generally appropriate for the occupancy and fire risk? **No**

Finding

SC Aug 13, 2020, 7:48:24 AM

The premises should be provided with an appropriate fire warning system to a correct grade and with a correct detection level according to the occupancy, design and use of the building

Likelihood: Moderate **Consequence: High Harm**

✔ Tasks **1**

Fire warning system-correct grade/detection

In light of recent findings concerning compartmentation (service risers) and flat entrance doors, subject to further investigations/survey, the premises should be provided with an appropriate fire warning system to provide early warning to residents of a fire in other parts of the building which could facilitate full evacuation of a specific area of the block.

Location Complete building (Estates & Facilities, Hanover Court, Coronation Street, Cambridge)

High Priority — complete within 6 months to reduce the risk by 100% SC

Assigned Users John Conroy

✔ Remote transmission of alarm signals? **NA**

This assessment has considered the communal areas where there is currently no fire alarm system or fire detection to initiate fire safety systems such as AOV.

Flats have only a smoke alarm in the hallways (LD3) and are due to have additional heat detection installed in kitchens/living area in 2020/21. Where this is not an open plan area a smoke alarm is recommended for the living area providing LD2 coverage.

Following the fire at Kingsway flats and in Hanover Court earlier in 2020 and a specific fire risk assessment, the need to provide early warning to residents of a fire other than in their own dwelling has been identified. This is in conjunction with providing an interim measure until flat entrance doors are replaced with FD30S units and compartmentation work on service risers is completed.

A survey to determine fire alarm requirements will be required and is likely to link dwellings in particular off staircases that could become compromised by a fire due to the design and layout of the building. See comments above in 'Premises Description' and 'Evacuation Strategy'.

Manual Fire Extinguishing Appliances

Complete building (Complete Building)

1 / 1

✔ Reasonable provision of portable fire extinguishers? **N/A**

✔ Hose reels provided? **N/A**

✔ Are all fire extinguishing appliances readily accessible? **N/A**

It is not appropriate to provide fire extinguishers in the communal areas. The caretaker has two water (9L) in his office.

Relevant Fire Extinguishing Systems

Complete building (Complete Building)

1 / 1

- ✔ **Is fixed firefighting equipment and fire safety systems provided where required and are they suitable for the risks identified?** **Yes**
- ✔ **Is a natural or mechanical smoke control system employed where necessary and is it appropriate for the location?** **N/A**

A dry riser outlet is provided on the 3rd and 6th floor walkways at each end of the building with the inlet directly below. A PIB for both Hanover and Princess Court is located at the Coronation Street end of the block adjacent the access staircase. The DR was tested: January 2020 (6m) Annual test due: July 2020

It is recommended that the fire service are invited to use the DR's as part of a training/familiarisation exercise.

The lift has a fire fighters control switch outside the lift doors at ground level. It is not clear if this is still operative - see section below.

↕ Other Relevant Fixed Systems and Equipment

- | | |
|---|-------|
| Complete building (Complete Building) | 1 / 1 |
| ✔ Has suitable provision of fire-fighters switch(es) for high voltage luminous tube signs, etc been made? N/A | |

There are high priority recommendations that have already been highlighted in May 2020 following the fire in Kingsway flats and the flat entrance door survey carried out in 2019. Progress to rectify these deficiencies is underway and has been delayed by the national Covid issue.

New FD30S flat entrance doors are programmed to be fitted in 2020/21 in this block.

The other linked fire safety issue is the design of the building and how a fire might affect escape routes along with the service riser potentially not being adequately fire separated (subject to survey). A combination of measures would address this given it is not known how a fire may affect the semi open escape routes and includes linked fire warning systems.

MANAGEMENT OF FIRE SAFETY

📄 Procedures and Arrangements

- | | |
|---|-------|
| Complete building (Complete Building) 3 x 2 = 6 Substantial Risk | 1 / 1 |
| ✔ Competent person(s) appointed to assist in undertaking the preventive and protective measures (i.e. relevant general fire precautions)? Yes | |
| ✔ Is there a suitable record of the fire safety arrangements? Yes | |
| ✔ Appropriate fire procedures in place? Yes | |
| ✔ Are procedures in the event of fire appropriate and properly documented? Yes | |
| ✔ Are there suitable arrangements for summoning the fire and rescue service? N/A | |
| ✔ Are there suitable arrangements for ensuring that the premises have been evacuated? N/A | |
| ✔ Is there a suitable fire assembly point(s)? N/A | |
| ✘ Are there adequate procedures for evacuation of any disabled people who are likely to be present? No | |

👁 Finding

👤 SC ⌚ Aug 13, 2020, 7:51:10 AM

Procedures for people with restricted mobility (PRM) and/or who are vulnerable to be confirmed through person centred fire risk assessments (PCFRA).

Likelihood: Moderate **Consequence: High Harm**

✔ Tasks **1**

☐ PRM procedures

An action point from the recent specific fire risk assessment (SFRA) is to establish if there are residents who need assistance to evacuate their flat given the suspension of the stay put policy established through PCFRAs.

On completion of this survey PEEPs maybe required for individual residents with copies kept in the premises information box (PIB).

Location Complete building (Estates & Facilities, Hanover Court, Coronation Street, Cambridge)

High Priority — complete within 6 months to reduce the risk by 100% 👤 SC

Assigned Users 👤 John Conroy

- ✔ **Persons nominated and trained to use fire extinguishing appliances?** **N/A**
- ✔ **Persons nominated and trained to assist with evacuation, including evacuation of disabled people?** **N/A**
- ✔ **Appropriate liaison with fire and rescue service (e.g. by fire and rescue service crews visiting for familiarization visits)?** **Yes**
- ✔ **Routine in-house inspections of fire precautions (e.g. in the course of health and safety inspections)?** **Yes**

⊗ **Are there suitable arrangements to meet the fire and rescue service on arrival and provide relevant information, including that relating to hazards to fire-fighters?** **No**

👁 Finding

👤 SC ⌚ Aug 13, 2020, 7:51:10 AM

Information available for firefighters on arrival at the premises requires updating.

Likelihood: Moderate **Consequence: Medium Harm**

✅ **Tasks** 1

❑ Information to firefighters (PIB)

Ensure any premises information box (PIB) contains all information relevant to the emergency services. In particular in the case of the fire service, provide keys to the fire warning panel/s, relevant site and floor plans annotated with, or; separate details of hazards and risk rooms, as well as a vulnerability list where appropriate.

This should include evacuation arrangements and risks following and identified from PCFRA's and PEEP's. The current plans date from October 2007.

Once PCFRA's have been carried out any relevant information/PEEPS should be held in the PIB.

Following further liaison with CFRS additional plans/information relating to the layout/numbering of Kingsway flats might be required to be held in the PIB.

Location Complete building (Estates & Facilities, Hanover Court, Coronation Street, Cambridge)

High Priority — complete within 6 months to reduce the risk by 100% 👤 SC

Assigned Users 👤 John Conroy

The need to assess for potentially vulnerable residents who may have difficulty escaping independantly has been highlighted following the fire in Kingsway.

A meeting to initiate a survey for PCFRA's has taken place.

Temporary fire procedure arrangements may be required to be put in place until upgrading of compartmentation and fire doors has been completed. In this interim period an early fire warning system extending beyond individual dwellings may also be installed as per Kingsway and subject to further surveys of the buildings compartmentation/means of escape that require a permanent linked fire warning system.

Residents have been written to regarding fire door upgrading. There are tenant representatives who have good liaison with Council Officers to ensure resident engagement.

With regard to changes in fire procedure, notices located at the entrances to the block would need to be amended/changed and an assembly point should be considered to assist the fire service in establishing who is involved in any fire incident.

🕒 **Training and Drills**

Complete building (Complete Building)

1 / 1

- ✔ **Are all staff given adequate fire safety instruction and training on induction?** **Yes**
- ✔ **Are all staff given adequate periodic "refresher training" at suitable intervals?** **Yes**
- ✔ **Does all staff training provide information and instruction on the following: fire risks and fire safety measures in the premises, action in the event of fire, action on hearing the fire alarm , method and operation of manual call points, location and use of fire extinguishers, means for summoning the fire and rescue service, the identity of persons nominated to assist with evacuation and the identity of persons nominated to use fire extinguishing appliances** **N/A**
- ✔ **Are staff with special responsibilities (e.g. fire wardens) given additional training?** **N/A**
- ✔ **Are fire drills carried out at appropriate intervals?** **N/A**
- ✔ **When the employees of another employer work in the premises: Is their employer given appropriate information (e.g. on fire risks and general fire precautions)?** **Yes**
- ✔ **Is it ensured that the employees in the above question are provided with adequate instructions and information?** **Yes**

Contractors are subject to the fire safety and health and safety policies of the Council.

The caretaker has recieved fire awareness training as a CCC employee.

🗋 **Testing and Maintenance**

Complete building (Complete Building) **2 x 1 = 2 | Tolerable Risk**

1 / 1

- ✔ **Are the premises fire safety provisions adequately maintained?** **Yes**

✔ Weekly testing and periodic servicing of fire detection and alarm system? **N/A**

✘ Monthly and annual testing routines for emergency escape lighting? **No**

👁 Finding

👤 SC ⌚ Aug 12, 2020, 8:06:23 AM

The emergency lighting installation and equipment could not be confirmed as periodically inspected, tested and maintained

Likelihood: Low **Consequence: Medium Harm**

✔ Tasks **1**

Emergency Lighting Monthly Testing

Ensure monthly function testing of all emergency lighting luminaires is undertaken. This is to establish the switching from normal to standby supply is working correctly.
Ensure a suitable system of defect reporting and repairs is in place and repairs/replacements are made in a timely fashion.

Location Complete building (Estates & Facilities, Hanover Court, Coronation Street, Cambridge)

High Priority — complete within 3 months to reduce the risk by 100% 👤 SC

Assigned Users 👤 John Conroy

✘ Annual maintenance of fire extinguishing appliances? **No**

👁 Finding

👤 SC ⌚ Aug 12, 2020, 8:06:23 AM

Portable fire fighting equipment in Caretakers office was not maintained in accordance with the current relevant standard and subject to an annual inspection by a qualified competent engineer.

Likelihood: Low **Consequence: Medium Harm**

✔ Tasks **1**

Portable fire extinguishers-annual maintenance

Portable fire fighting equipment should be maintained in accordance with the current relevant standard and subject to an annual inspection by a qualified competent engineer.

Location Complete building (Estates & Facilities, Hanover Court, Coronation Street, Cambridge)

High Priority — complete within 3 months to reduce the risk by 100% 👤 SC

Assigned Users 👤 John Conroy

✔ Periodic inspection of external escape staircases and gangways? **Yes**

✔ Six-monthly inspection and annual testing of rising mains? **Yes**

✘ Weekly and monthly testing, six-monthly inspection and annual testing of fire-fighting lifts? **No**

👁 Finding

👤 SC ⌚ Aug 12, 2020, 8:06:23 AM

Firefighting lifts were not maintained and tested at prescribed intervals in accordance with current standards or records were not available to verify testing.

Likelihood: Low **Consequence: Medium Harm**

✔ Tasks **1**

Firefighting/evacuation lifts-maintained and tested

Where fitted ensure firefighting/evacuation lifts are maintained and tested at prescribed intervals in accordance with current standards with appropriate records being kept

Location Complete building (Estates & Facilities, Hanover Court, Coronation Street, Cambridge)

High Priority — complete within 3 months to reduce the risk by 100% 👤 SC

Assigned Users 👤 John Conroy

✔ Weekly testing and periodic inspection of sprinkler installations and smoke control systems? **N/A**

✔ Annual inspection and test of lightning protection system? **Yes**

✔ Are suitable systems in place for reporting and subsequent restoration of safety measures that have fallen below standard? **Yes**

✘ Routine checks of final exit doors and/or security fastenings? **No**

👁 Finding

👤 SC ⌚ Aug 12, 2020, 8:06:24 AM

Testing of 'push to exit' over rides (green boxes)

Likelihood: Low **Consequence: Low Harm**

✓ Tasks 1

- Testing of 'push to exit' over rides (green boxes)

These are located in the refuse rooms and should be regularly tested. Monthly testing with the emergency lighting is suggested.

Location Complete building (Estates & Facilities, Hanover Court, Coronation Street, Cambridge)

Low Priority — complete within 6 months to reduce the risk by 100% 👤 SC

Assigned Users 👤 John Conroy

Arrangements are in place for all relevant tests for items in both the communal areas and individual dwellings by TSG.

Note. The door release buttons in the refuse rooms have manual over rides (green boxes) - these should be subject to regular testing (suggest monthly with emergency lighting).

The lift (including the lift for Princess Ct) has a fire fighters switch to enable control of the lift. It is not clear if this is still effective. Given the height of the building this facility would be of use to the fire service.

🕒 Records

Complete building

1 / 1

- ✔ **Appropriate records of: Fire drills?** N/A
- ✔ **Appropriate records of: Fire training?** N/A
- ✔ **Appropriate records of: Fire alarm tests?** N/A
- ✔ **Appropriate records of: Emergency escape lighting tests?** Yes
- ✔ **Appropriate records of: Maintenance and testing of other fire protection systems?** Yes

Records are kept centrally and electronically rather than on site.

The assessor did not have access to records.

This building is encompassed within Cambridge City Council's Fire Safety Policy and Fire Risk Management Strategy. See 'Evidence' for these documents.

There is liaison with the local fire protection officer (CFRS) and also with residents through leasehold representatives and CCC Estate Champions.

Management of fire safety has improved and the significant findings of fire risk assessments of recent assessments are being actioned with monitoring in place through the Fire Risk Management Group.

Future legislative requirements regarding flat entrance door inspections will need to be addressed.

➤ References

REFERENCES

Guidance in Support of Fire Safety Legislation

England and Wales

HM Government Guides to Fire Safety Risk Assessment, DCLG:

- Offices and Shops.
- Factories and Warehouses.
- Sleeping Accommodation.
- Residential Care Premises.
- Educational Premises.
- Small and Medium Places of Assembly.
- Large Places of Assembly.
- Theatres, Cinemas and Similar Premises.
- Open Air Events and Venues.
- Healthcare Premises.
- Animal Premises and Stables.
- Transport Premises and Facilities.
- Means of Escape for Disabled People.

Scotland

Scottish Government: Practical Fire Safety Guidance:

- Existing Non-Residential Premises.
- Existing Premises with Sleeping Accommodation.
- Care Homes.
- Healthcare Premises.
- The Evacuation of Disabled Persons from Buildings.

Northern Ireland

DHSSPS Sector Specific Guidance Documents:

- Sleeping Accommodation.
- Offices and Shops.
- Healthcare Premises.
- Theatres, Cinemas and Similar Premises.
- Small and Medium Places of Assembly.
- Open Air Events.

Guidance in Support of Building Regulations

England and Wales

- Approved Document B Vol 2, 2006 edition (as amended).

Scotland

- Technical Handbook 2019, Non-Domestic – Fire.

Northern Ireland

- Technical Booklet E 2012.

Fire Safety Design and Management

- BS 9991:2015. (Incorporating corrigendum No. 1.) Fire safety in the design, management and use of residential buildings. Code of practice.
- BS 9999:2017. Fire safety in the design, management and use of buildings. Code of practice.

Fire Detection and Fire Alarm Systems

- BS 5839-1:2017. Fire detection and fire alarm systems for buildings. Code of practice for design, installation, commissioning and maintenance of systems in non-domestic premises.
- BS 5839-6:2019. Fire detection and fire alarm systems for buildings - Code of practice for the design, installation, commissioning and maintenance of fire detection and fire alarm systems in domestic premises.
- BS 5839-8:2013. Fire detection and fire alarm systems for buildings - Code of practice for the design, installation, commissioning and maintenance of voice alarm systems.
- BS 5839-9:2011. Fire detection and fire alarm systems for buildings - Code of practice for the design, installation, commissioning and maintenance of emergency voice communication systems.

Fire Extinguishing Appliances

- BS 5306-1: 2006. Code of practice for fire extinguishing installations and equipment on premises - hose reels and foam inlets.

- BS 5306-3:2017. Fire extinguishing installations and equipment on premises. Commissioning and maintenance of portable fire extinguishers. Code of practice.
- BS 5306-8:2012. Fire extinguishing installations and equipment on premises - Selection and positioning of portable fire extinguishers - Code of practice.
- BS EN 3. Portable fire extinguishers.
- BS EN 671-3:2009. Fixed fire-fighting systems. Hose systems. Maintenance of hose reels with semi-rigid hose and hose systems with lay-flat hose.
- BS EN 1869:2019. Fire blankets.

Emergency Escape Lighting

- BS 5266-1:2016. Emergency lighting - Code of practice for the emergency lighting of premises.
- BS 5266-8:2004. (BS EN 50172: 2004). Emergency escape lighting systems.
- BS EN 1838:2013. Lighting applications - Emergency lighting.

Fire Safety Signs

- BS 5499-4:2013. Safety signs. Code of practice for escape route signing.
- BS ISO 3864-1:2011. Graphical symbols. Safety colours and safety signs. Design principles for safety signs and safety markings.
- BS EN ISO 7010:2020. Graphical symbols. Safety colours and safety signs. Registered safety signs.
- BS 5499-10:2014. Guidance for the selection and use of safety signs and fire safety notices.

Fixed Fire Extinguishing Systems and Equipment

- BS EN 12845:2015+A1 2019. Fixed fire-fighting systems. Automatic sprinkler systems. Design, installation and maintenance.
- BS 9990:2015. Non-automatic fire-fighting systems in buildings. Code of practice.

Lightning

- BS EN 62305-1:2011. Protection against lightning. General principles.
- BS EN 62305-2:2012. Protection against lightning. Risk management.
- BS EN 62305-3:2011. Protection against lightning. Physical damage to structures and life hazard.
- BS EN 62305-4:2011. Protection against lightning. Electrical and electronic systems within structures. Miscellaneous
- BS 7176:2007+A1: 2011. Specification for resistance to ignition of upholstered furniture for non-domestic seating by testing composites.
- BS 7273-4:2015. Code of practice for the operation of fire protection measures. Actuation of release mechanisms for doors.
- BS 7671:2018/A1:2020. Requirements for Electrical Installations. IET Wiring Regulations. Eighteenth Edition. BS 8899:2016. Improvement of fire-fighting and evacuation provisions in existing lifts. Code of practice.
- PAS 79:2012. Fire risk assessment - Guidance and a recommended methodology.

Published Guidance on Control of Contractors

- Standard Fire Precautions for Contractors Engaged on Crown Works, Department of Environment, HMSO.
 - Fire Prevention on Construction Sites. Fire Protection Association.
 - Fire Safety in Construction. HSG168 (2nd edition) HSE.
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