



**FIRE RISK ASSESSMENT
2 & 10-28 BYKER CRESCENT, BYKER,
NEWCASTLE UPON TYNE
NE6 2JT**

MARCH 2022

Reference: BC/09/03/22/IC

Prepared by:

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Version: 1

Prepared for:

Karbon Homes
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CONTENTS

		Page(s)
1	Introduction	1
2	The Building	5
3	Fire Hazards	7
4	Means of Escape	9
5	Management Procedures	13
Appendix		
1	Fire Risk Assessment	
2	Schedule of Observations	



1.0 INTRODUCTION

The Client	Karbon Homes
Instruction	This Fire Risk Assessment was undertaken in accordance with an instruction received from Tony Ruddick, Data & Compliance Manager, Karbon Homes.
Responsible Person	Paul Fiddaman, Chief Executive, Karbon Homes.
The Property	2 & 10-28 Byker Crescent, Byker, Newcastle Upon Tyne. NE6 2JT.
The Surveyor	The Fire Risk Assessment was carried out by: Ian Cuskin GIFireE.
Survey Date	9 th March 2022
Scope and Purpose of the Fire Risk Assessment	The Regulatory Reform (Fire Safety) Order 2005 [RR(FS)O] applies to all non-domestic premises, including any voluntary sector and self-employed people with premises separate from their homes.

A fire risk assessment is an organised and methodical look at your premises. The fire risk assessment procedure identifies the activities carried out at the premises and assesses the likelihood of a fire starting. The aim of a fire risk assessment is to:

- Identify the hazards.
- Reduce the risk of those hazards causing harm to as low as reasonably practicable.
- Decide what physical fire precautions and management policies are necessary to ensure the safety of people in your premises if a fire does start.

The fire risk assessment was carried out in accordance with the Department for Communities and Local Government (DCLG) 'sleeping accommodation' guidance document as well as the Local Government Group (LGG) document 'Fire safety in purpose built blocks of flats'.



This building has been audited to highlight to the Client, any non-compliant issues with regard to relevant aspects of UK fire safety legislation and best practice. The principal documents relevant to buildings being:

- The Building Regulations 2019 Approved Document B – Fire Safety
- BS9999 2018 Code of practice for fire safety in the design, management and use of buildings
- BS9991 2015 Fire safety in the design, management and use of residential buildings – Code of practice
- Local Government Group - Fire safety in purpose-built blocks of flats (hereafter referred to as the LGA Guide)
- LACORS – Housing – Fire Safety – Guidance on fire safety provisions for certain types of existing housing

The RR(FS)O does not stipulate the required review period for a particular building; we recommend a review of this building **annually or when a material change is made to the property.**

Limitations of the Fire Risk Assessment

The RR(FS)O places a burden of responsibility firmly on the head of a 'responsible person' with regard to the fire safety of the occupants of the premises to which they have been assigned. The responsible person is required to co-ordinate all fire safety related issues including the carrying out of a fire risk assessment and production of associated documentation. The responsible person may nominate a 'competent person' to assist in the implementation of any measures deemed necessary to ensure the fire safety of the occupants of the premises.

There are many factors that impact upon what may constitute adequate measures to assess the fire safety of the occupants. Resilience Risk Management Services Ltd are not the responsible person and are unable to determine, on behalf of the organisation, the steps it should or must take to comply with its duties under the RR(FS)O. The fire risk assessment will cover all of the areas within the property. We will also comment upon the external construction materials of the building and the area surrounding the building.



This report is for the use of the party to whom it is addressed and should be used within the context of instruction under which it has been prepared.

A Type 3, Common Parts and Flats (non-invasive) Fire Risk Assessment (as detailed in LGA Guidance Document Fire Safety in Purpose Built Blocks of Flats) has been conducted in relation to this property.

Prioritisation of Recommendations To assist in the development of a strategy and action plan for addressing recommendations in the fire risk assessment report, a priority rating is attached to each recommendation. The following is an explanation of each rating:

High Priority: Immediate action required to prevent risk to the health and safety of relevant persons

Medium Priority: Planned action to improve fire safety within the premises

Low Priority: Features that comply with current regulations but which the responsible person may consider upgrading.

Identified costs of Recommendations The report will give a budget costing for recommendations covered in the fire risk assessment for alterations or improvements to physical features to assist the client in developing an Action Plan and improvement programme.

Access Limitations We were unable to access the following compartments: -

- Service cupboards 3/G.2 and 3/G.3 and the locked cupboard at the foot of the stair adjacent to entrance 3.

We advise the client gains access to these compartments to ensure there are no significant fire hazards or compartment breaches within.



Revisit

There is no requirement for a revisit at this time.



2.0 THE BUILDING

2.1 The Building The building is a grade II* listed building with Historic England, designed and constructed circa 1969 in an iconic 'wall' design consisting of inter-connecting blocks of external cavity brick and concrete load-bearing walls arranged in 3 to 5 storeys with concrete floors, stairs and a corrugated steel and membrane flat roof and fascia. Rainwater goods are Upvc.

The external fabric of the building is part brick cavity construction and part Marley Equitone (Pictura) cladding together with Tenmat ventilated fire barriers fixed to blockwork with no insulation due to the 25 cavity and the listing preventing any change externally. Walkways have Filon cladding to class 1 fire rating.

The building consists of 28 apartments ranging from one bedroom flats to two bedroom maisonettes which cover 3 to 5 floors with ground floor apartments accessed individually at ground floor with independent external front doors. Access to the upper floor apartments is via 2 steel glazed security doors at the foot of 2 protected stair cases located at the north/west end of the block and at the south/east end of the block. Entrance 4 is located at the south/east end where the building links to Bamburgh Terrace via 2 upper floor balconies from the protected stair which also houses the residents lift. Entrance 5 is located at the foot of the protected stair at the north/west end where the block is adjoining a traditional build Victorian stone church with a brick built extension connecting it to the Byker wall.

Both entrances give direct access into the communal concrete protected stairs which have solid masonry walls and ceilings with plaster skim finish (Class 0) and openable windows for smoke control.

The stairs give access to a concrete balcony on the 4th floor giving access to the upper floor apartments. The balcony is protected by timber edge protection and PVC corrugated canopies. A number of timber features are installed upon the balcony in the shape of fixed



seating and planters which do not interfere with the means of escape.

The building features decorative timber cladding and composite boarding in part, affixed to the external surface of the south face of the building. The building also benefits from aluminium double glazing which is installed throughout and the property and also benefits from a communal district heating system which is generated remotely from the building.

Internally, the apartments are constructed of solid brick compartment walls with plaster skim and internal timber stud walls also with plaster skim.

There are a number of service cupboards located upon each communal stair housing refuse stores, communications equipment and electrical meters which are kept locked with access only to authorised persons. In addition, the stair housing the resident's lift also contains a lift motor room at roof level. Each of these service cupboards is fitted with fire doors (FD60S).

The building benefits from CCTV and a remote concierge service. It has emergency lighting throughout and has automatic fire detection within the private apartments and high-risk service cupboards only, connected to a 24/7 monitoring centre.

2.2 Fire Loss Experience

Karbon Homes have not made us aware of any fire related incidents at this housing scheme.



3.0 FIRE HAZARDS

3.1 Sources of Fuel

- Electrical PVC insulation throughout and in particular the meter room.
- Timber construction materials (in particular, within the roof space, balcony/walkway construction).
- Refuse stored within the internal refuse store.
- Refuse stored in the wheeled bins within residents' rear gardens.
- Potential for some properties to have a gas supply for cooking.

It is accepted that there will be sources of fuel located within the individual apartments associated with domestic living such as; timber and foam furnishings, linen, bedding and household clothing and cooking oils and fats within the kitchens.

Karbon Homes are in the process of removing all historic and redundant gas supplies in the Byker Estate, in partnership with Northern Gas Networks, with minimal properties still connected. Any remaining connected properties receive an annual gas safety check, and when they become void the gas supply is removed.

3.2 Sources of Ignition

The sources of ignition within the property were assessed as follows:

- Electrical supply and distribution system.
- Communications and CCTV equipment within the landlord services room.
- Potential for arson, in particular, to the wheelie bins stored to the rear of the building within residents' gardens (away from the building).

The mains electrical supply and distribution system was subject to a fixed wiring inspection by a competent engineer which is recorded within the records held by Karbon Homes as 23/07/19. All electrical installations are required to be tested regularly to the standards defined by the IET Wiring Regulations (BS 7671). The



mains electrical supply and distribution installation and wiring (common areas and rented dwellings) should be tested at least every five years by a registered NICEIC contractor to satisfy compliance with the requirements of the Electricity at Work Regulations 1989 in addition to the IET Wiring Regulations BS7671:2018 18th edition.

The communal areas (stairs and landings) of the property are no smoking areas and are accompanied with the appropriate signage. There were no signs of smoking taking place in these areas.

3.3 Sources of
Oxygen

Natural airflow through doors and windows.

3.4 People at Risk

The residents within the building and ground floor flats as well as the potential for visitors, housing staff and trades persons.



4.0 MEANS OF ESCAPE

4.1 Escape Routes The means of escape routes consists of the two main protected stairs to each end of the block and the 4th floor balcony which connect the stairs and give access to the upper floor apartments.

The means of escape routes within the building are sterile apart from an occasional planter and/or fixed bench seating outside several individual properties. These are low risk and due to the size, layout, available exit routes and number of residents within the building pose a minimal risk of impeding evacuation in the event of a fire. Karbon Homes are also aware of these and this is part of their "managed use" policy of the building to keep these to an acceptable level and at the same time encourage residents to have a sense of pride and value in their home environment.

Both escape stairs terminate with an outward opening final exit which is opened by the operation of a press to open button, which also unlocks on the termination of the electricity supply, and leads to a place of ultimate safety.

The access doors from the protected stairs onto the access balconies are fire doors (FD30S) with self-closing devices.

All ground floor apartments exit directly to a place of ultimate safety via their independent front doors and all other apartments exit onto the balcony exit routes or protected stairs. From these walkways, residents are able to access both the main stair means of escape routes. In addition, the South/West stair provides access and escape via the upper balconies of the adjoining Bamburgh Terrace.

All access/egress routes were clear at the time of the inspection and are within the recommended travel distances for this type of premises as detailed with the Building Regulations Approved Document B and DCLG Fire Risk Assessment Guidance.

4.2 Fire Doors We were able to gain access to flats 2, 18, 25 and 28 in order to check the specification and action of the flat entrance doors. The



flat entrance doors to number 2 is a FD60S door with fire rated letterbox and door viewer, but does not have a self-closing device attached and part of its combined intumescent strip and cold smoke seal is missing. In addition, it appears to have suffered some damage as it is difficult to close. As this particular door is located adjacent to a final exit, we recommend a self-closing device is attached to this door to ensure it can close fully against its rebate unaided and under its own weight, is rehung so that it can close fully against its rebate, and the combined intumescent strip and cold smoke seal is reinstated.

All refuse store and service cupboard doors (kept locked) have recently been upgraded and are FD60S SC doors to BS8214. Doors onto the balcony walkways are FD30S part glazed fire doors with self-closing devices.

4.3 Fire Compartmentation

The means of escape routes within the building are protected by fire resistant walls, ceilings, and doors, which provide 60-minute fire protection. These include solid brick walls with a plaster finish, ceilings with textured plaster skim, and concrete floors.

Windows opening onto the communal balconies are aluminium double glazed and are not fire resistant in construction, however as there are alternative escape routes available from each flat entrance along the open balcony, the apartment entrance doors and windows are not required to be fire-resisting (LGG Fire Safety in Purpose Built Blocks of Flats Sec 59.4).

As part of the inspection, access was gained to flats 2, 18, 25 and 28 to check for any obvious breaches in compartmentation. None were found.

It was noted within the landlord services room (door 3/3.1) yellow PU expandable foam has been used to seal gaps around the door frame. Yellow PU foam is highly flammable and is not suitable within this particular compartment. This foam should be removed and the gaps sealed using a suitable fire stopping material capable of achieving a minimum 60 minutes fire resistance.



We were unable to access the following compartments: -

- Cupboards in entrance 3 (doors 83/G.3 and 3/G.2).
- The cupboard at the bottom of the stair, entrance 3.

We advise the client gains access to these compartments to ensure there are no significant fire hazards or compartment breaches within, that may facilitate fire spread within the building.

4.4 Fire Alarm and Detection System

There is no fire detection (or a requirement to do so) within the communal stairs. The bin stores and most landlord services cupboards have mains powered smoke detection within, linked to the concierge.

We inspected the detection within flats 2, 18, 25 and 28 and noted that the fire detection system within each property appears to be a Grade D1 category LD3 system covering the circulation spaces within the dwelling, which appear to conform to BS5839-6. This comprises of interlinked mains powered smoke detectors which are also linked to the concierge system. Karbon Homes have supplied test dates to show the inspection and testing of the domestic smoke detection took place on 15/02/22 by an approved contractor, to BS5839-6.

It was noted the meter room (door 5/3.1) does not have external ventilation as many others do in other blocks. As mentioned previously in another report, the client should consider extending the smoke detection to all of these high-risk rooms in order to detect any fire occurring due to the electrical hazard within, and mitigate the impact on the electrical supplies of the residents.

4.5 Emergency Lighting

The premises have 3-hour non-maintained emergency lighting installed at key points on the escape routes throughout the building that conform to BS5266. These were last subject to an annual full discharge test 15/02/2022. Weekly functional tests are being carried out by on-site electricians' and details recorded centrally. The emergency lighting is required to be tested and



maintained in accordance with BS5266 which requires monthly short duration tests and annual full discharge test.

4.6 Fire Fighting Equipment
There is no portable firefighting equipment on site in the communal areas. Landlords are not required to provide such equipment in residential properties and some fire authorities discourage installing firefighting equipment as they would rather the residents leave the building than attempt to fight a fire with equipment they have not been trained to use.

4.7 Signage
There is adequate fire exit and directional signage fitted within the building conforming to BS5499. "No smoking" notices and general fire action notices are also displayed throughout the building in appropriate locations.

The exit door leading from the rear of the ground floor lobby requires a directional thumb turn sign indicating its correct use.

All signage should satisfy the requirements of BS 5499-5 and be installed in accordance with the recommendations of BS 5499-4.

4.8 Disabled Persons Egress
The property is suitable for persons with limited mobility on the ground floor. It is the Responsible Person's duty to ensure suitable provision is made for disabled persons within the property to ensure that they can escape in the event of a fire.



5.0 MANAGEMENT PROCEDURES

- 5.1 Fire Evacuation Procedures There is a "Full Simultaneous" evacuation policy for this premises for all occupants in a fire situation. When residents are first inducted to the premises, they are given a briefing on what to do in the event of a fire within the building. This is reinforced by the provision of General Fire Action notices.
- 5.2 Fire Log Book There is a fire log book held within the red fire documents box in the lobby of entrance 3 which was partially completed. It would be beneficial for the electricians weekly functional tests of the emergency lighting to also be included within (only required to be monthly). Karbon Homes holds all records of equipment tests and staff training carried out.
- 5.3 Training There are no staff in general needs accommodation.
- 5.4 Access & Facilities for the Fire Service Access to the buildings for fire appliances is good and is in line with the requirements of Approved Document B.
- 5.5 Arson The risk of an arson attack is considered medium. The premises have secure access and entry is controlled, with the addition of a concierge service when needed. CCTV is also installed at key points within and external to the building. On the ground floor, residents wheeled bins are stored to the rear of their gardens away from the building.
- 5.6 Previous Recommendations Karbon Homes have provided us with the previous fire risk assessment for this building. Should any significant issues be outstanding, we will highlight these in Appendix 2 – Schedule of Observations of this report.



Surveyor Ian Cuskin GFireE

Signed 

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On Behalf of Resilience Risk Management Services Ltd

**APPENDIX 1
FIRE RISK ASSESSMENT**

FIRE RISK ASSESSMENT

		<i>Potential consequences of fire</i>		
		<i>Slight Harm (1)</i>	<i>Moderate harm (2)</i>	<i>Extreme harm (3)</i>
<i>Likelihood of fire occurring</i>	Low (1)	Trivial Risk	Tolerable Risk	Moderate Risk
	Medium (2)	Tolerable Risk	Moderate Risk	Substantial Risk
	High (3)	Moderate Risk	Substantial Risk	Intolerable Risk

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

Low

 Medium

 High

- Low:** Unusually low likelihood of fire as a result of negligible potential sources of ignition.
- Medium:** 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).
- High:** Lack of adequate controls applied to one or more significant fire hazards, such as to result in significant increase in likelihood of fire.

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

Slight harm

 Moderate harm

 Extreme harm

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

- Slight harm:** 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 harm:** 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 harm:** Significant potential for serious injury or death of one or more occupants.

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

Tolerable Risk

(Note that, although the purpose of this section is to place the fire risk in context, the above approach to fire risk assessment is subjective and for guidance only. All hazards and deficiencies identified in this report should be addressed by implementing all recommendations contained in the following action plan. The fire risk assessment should be reviewed regularly.)

Risk level	Action and timescale
Trivial	No action is required and no detailed records need be kept.
Tolerable	No major additional fire precautions required. However, there might be a need or reasonably practicable improvements that involve minor or limited cost.
Moderate	<p>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.</p> <p>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.</p>
Substantial	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	Premises (or relevant area) should not be occupied until the risk is reduced.

APPENDIX 2
SCHEDULE OF OBSERVATIONS

Fire Doors

MEDIUM		1
		<p>Assessors Observations:</p> <p>The flat entrance doors to number 2 is a FD60S door but does not have self-closing device attached and part of its combined intumescent strip and cold smoke seal is missing. In addition, it appears to have suffered some damage as it is difficult to close.</p>
		<p>Recommended Action:</p> <p>As this particular door is located adjacent to a final exit, we recommend a self-closing device is attached to this door to ensure it can close fully against its rebate unaided and under its own weight, is rehung so that it can close fully against its rebate, and the combined intumescent strip and cold smoke seal is reinstated.</p>
		<p>Date First Identified:</p> <p style="text-align: center;">09/03/22</p>
		<p>Date of FRA</p> <p style="text-align: center;">09/03/22</p>
		<p>Rectify Within: (months)</p> <p style="text-align: center;">6</p>
<p>Budget Cost:</p> <p style="text-align: center;">£150</p>		

Compartmentation

MEDIUM		2
		<p>Assessors Observations:</p> <p>Within the landlord services room (door 3/3.1) yellow PU expandable foam has been used to seal gaps around the door frame. Yellow PU foam is highly flammable and is not suitable within this particular compartment.</p>
		<p>Recommended Action:</p> <p>This foam should be removed and the gaps sealed using a suitable fire stopping material capable of achieving a minimum 60 minutes fire resistance.</p>
		<p>Date First Identified:</p> <p style="text-align: center;">09/03/22</p>
		<p>Date of FRA</p> <p style="text-align: center;">09/03/22</p>
		<p>Rectify Within: (months)</p> <p style="text-align: center;">6</p>
<p>Budget Cost:</p> <p style="text-align: center;">£20</p>		

Signage

LOW		3			
		Assessors Observations:			
		The fire door to the cupboard in the lobby of entrance 3 requires a "Fire Door Keep Locked" sign to be attached to the face of the door.			
		Date First Identified:	09/03/22	Recommended Action:	
		Date of FRA	09/03/22	As above	
		Rectify Within: (months)	12		
Budget Cost:	£10				

LOW		4			
		Assessors Observations:			
		The exit door leading from the rear of the ground floor lobby requires a directional thumb turn sign indicating its correct use.			
		Date First Identified:	09/03/22	Recommended Action:	
		Date of FRA	09/03/22	As above	
		Rectify Within: (months)	12		
Budget Cost:	£10				