FIRE RISK ASSESSMENT
1-16 CHIRTON HOUSE, HEADLAM GREEN, BYKER, NEWCASTLE UPON TYNE NE6 2TW

OCTOBER 2022

STORM TEMPEST
PROPERTY CONSULTANCY

Reference: 4180-03-22-PA
Version: 2

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Prepared for:
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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	Chirton House, Headlam Green, Byker, Newcastle upon Tyne NE6 2TW
The Surveyor	The Fire Risk Assessment was carried out by: Paul Anderson BEng (Hons), MIFireE
Survey Date	31st October 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 in addition to the 'Local Government Group - 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 residential buildings being:

- The Building Regulations 2012 Approved Document B – Fire Safety
- BS9999 2008 Code of practice for fire safety in the design, management and use of buildings
- BS9991 2011 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 LGG Guide)
- LACORS – Housing – Fire Safety – Guidance on fire safety provisions for certain types of existing housing
- NFCC Guide for 'Fire Safety in Specialised Housing'

The RR(FS)O does not stipulate the required review period for a particular building; we recommend a review of this type of building on an **annual** basis.

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. Storm Tempest 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 areas 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, Fire Risk Assessment (as detailed in LGG Guidance Document Fire Safety in Purpose Built Blocks of Flats) has been conducted in relation to this property. We were able to access flat 8.

We were unable to access the plant room to the west side of the building. We recommend this area is accessed to ensure any previously identified issues have been addressed.

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.

2.0 THE BUILDING

2.1 The Building

The building consists of a three-storey purpose built residential property housing 12 one and two bed apartments with 4 further externally accessed apartments to the ground floor. It also has a basement and is adjoining a row of link houses set at the east side at a right angle to Chirton House.

The building is a grade II* listed building with Historic England and is designed with an unusual layout and is semi-traditional in construction.

The main building is a two-storey linear block with a basement which has two independent ground floor apartments not accessed from within the communal corridors, and a further two accessed from outside but with rear doors into the east escape stair. At the west side is an adjoining three storey annex housing the lift and main stair.

Built with brick and block cavity external load-bearing walls and with decorative timber cladding and timber upper balconies the property has brick and timber stud internal walls with plasterboard and skim finish, timber double glazing and benefits from concrete floors and a timber frame, corrugated steel pitched roof.

The property has good security in place with controlled access and CCTV and also benefits from gas central heating.

The entrance is in the south west corner off Headlam Street and opens into an entrance lobby housing the mains electrical and distribution system within a protected enclosure, the red fire documents box. The lobby opens into the ground floor hall housing 3 apartments and the lift and giving access to the west stair within the annex.

The protected stair gives access to the first floor which consists of a single linear corridor giving access to 8 apartments above the externally accessed ground floor apartments (these have windows to the corridor which are secure and fire rated). The east end of the corridor leads to a second protected stair that descends through

the ground floor and a fire exit (where two external ground floor apartments have rear door access to the stair via a protected lobby) into the basement via a fire door which; due to a slope in the land, has an external exit at ground level and a set of roller shutter doors to a former storage garage.

The basement houses a number of rooms off a corridor including the plant room and main boilers, the main gas intake and meter, sprinkler system controls and a number of storage spaces in addition to the roller shuttered garage.

Both protected stairs benefit from AOV smoke ventilation while the property is fitted with emergency lighting throughout the means of escape and smoke detection within the dwellings.

The front doors to each apartment would appear to conform to BS8214 as fire doors (FD30S) and are fitted with intumescent strips and cold smoke seals.

The walls to the corridors and stairs and means of escape consist of brick and/or plasterboard with a plaster skim and paint finish (class 0) with carpets to the floors.

The individual apartments are protected by a domestic sprinkler system which would appear to conform to BS9251.

2.2 Fire Loss Experience	The client have not made us aware of any fire related incidents at this housing scheme.

3.0 FIRE HAZARDS

3.1 Sources of Fuel The sources of fuel within the premises were assessed as follows:

- Electrical PVC insulation throughout.
- Mains Gas supply.
- Timber construction materials (in particular, within the roof space, fascia's and some external cladding).
- Refuse stored within the wheelie bins within the purpose-built recess area to the rear of the property (away from the building).

The means of escape routes within the building are good and are kept clear of combustible materials and obstructions.

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.

We have no evidence or information to indicate that the timber cladding extensively present on parts of the building's exterior walls has previously been treated with fire retardant material during construction however; it is unlikely that this would now remain as effective as when applied even if it was present. In relation to the cladding however; due to the building height and layout and the internal arrangement of the means of escape and fire exits, it is not considered that the timber cladding would pose a significant risk in relation to the evacuation of the occupants with alternative means of escape available. There are also, no additional exposure risks within 1000mm of an external wall which would require additional protection for the external walls as included within the Building Regulations 2010.

Following a number of high profile incidents involving timber cladding and timber balconies, the Ministry for Housing, communities and Local government has issued new guidance that recommends removal or replacement of timber cladding or balconies with that which is EU class A1 or A2-S1 d0 however; this

is advice rather than regulations and should timber cladding and/or balconies remain on buildings less than 18m in height, then the risks of fire and fire spread must be reduced by controlling combustible items and storage upon them and the prevention of ignition sources such as BBQs and smoking. In addition to this advice, consideration must also be taken with regard to the buildings listed status.

The property gas meter is located within the basement. There was no evidence available to confirm that the gas supply and appliances within the building are subject to appropriate servicing and testing by a person who is, or employed by, a member of a class of persons approved by the HSE under regulation 3 of the Gas Safety (Installation and Use) Regulations 1998 as amended, eg a Gas Safe registered gas engineer.

The client should examine their maintenance records to ensure up to date certification of gas safety inspections for equipment and supply. If this cannot be confirmed the client should arrange to have the gas supply and equipment serviced as a matter of urgency. Failure to do so could result in the increased risk from a fire due to faulty equipment.

3.2 Sources of Ignition

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

- Electrical supply and distribution system.
- Electrical CCTV equipment within the Communications store room.
- Possible Arson attack, in particular, to the wheelie bins stored at the rear within the purpose-built storage bays which are away from the main building.

It is also accepted that there will be sources of ignition located within individual apartments associated with domestic living such as portable electrical goods, cooking and heating appliances, and the possibility of smoking materials and the use of candles.

	The client has provided information that shows that the main electrical system was subject to testing on the 20/01/2021 and is scheduled for re-test on 20/01/2026. The electrical distribution should be tested every five years by a registered NICEIC contractor to satisfy compliance with the requirements of the Electricity at Work Act 1989 and the IET Wiring Regulations BS 7671:2018. The communal areas of the property are no smoking areas and are accompanied with the appropriate signage.
3.3 Sources of Oxygen	Natural airflow through doors and windows.
3.4 People at Risk	The premises have a maximum number of residents of 24 with an additional 8 in the ground floor apartments externally accessed. In addition, there is the potential for visitors, housing staff and trades persons to be present.

4.0 MEANS OF ESCAPE

4.1 Escape Routes

The premises consist of a main front entrance door accessed off Headlam Street leading directly into the entrance lobby and then into the hall, stairs and landing. Entry is via fob access and the exit doors are power assisted with electro-mechanical locks without emergency overrides. Any exits fitted with electronic locking mechanisms must fail-safe on power failure and have a standby power supply. The client should confirm these doors unlock in the event of a power failure.

All apartments lead directly onto the hall, stairs, or landing with protected stairs at both the east and west ends of the building.

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

The fire assembly point is located at the front of the property on Headlam Street, a safe distance from the front doors.

4.2 Fire Doors

All fire doors situated upon Means of Escape and within the communal areas would appear to conform to BS8214 and meet the standard required as Fire resistant doors (FD30S) complete with intumescent strips and cold smoke seals.

Best practice guidance for fire doors stipulates that the gaps at the sides and top of a timber fire door should not exceed 3mm, +/- 1mm. We measured the gaps to several communal doors using a gap gauge and noted that numerous doors have gaps in excess of 4mm.

We recommend that the doors are surveyed and where doors are found to have gaps in excess of 4mm they are rehung so that there are no gaps between the door and frame in excess of 4mm. Failure to do so could result in the means of escape becoming smoke logged.

WE accessed flat 8 and noted the flat entrance door is a bwf certified FD30 door, all flat doors appeared to be similar doors.

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 plaster finish and concrete floors with plaster skim coatings to the ceilings. In addition to the main building, flat 8 was inspected for any obvious breaches in compartmentation. No breaches were found.

We noted evidence of fire stopping within the cupboard housing the electrical supply equipment and with the riser adjacent to flat 12.

We were unable to access any of the ceiling hatches to inspect the compartmentation within the loft space. The client should arrange access to the roof space to examine the compartmentation within.

4.4 Fire Alarm and Detection System

The building is fitted with a part 6 automatic fire detection and alarm system installed within the residential apartments. Within flat 8 we noted automatic detection within the hallway, living room, kitchen, and bedroom.

We noted automatic detection within the basement supplemented with a manual call point at the exit to the basement. We also noted control and indicating equipment within the basement adjacent to the entrance door.

The fire alarm system is connected to a 24/7 monitored concierge service with direct voice activation to the residents.

The client has provided information showing that the fire alarm system was subject to servicing on the 06/06/2022 and the next service is scheduled for 06/12/2022.

There was no evidence to show that the fire alarm system is subject to weekly testing. The client should ensure that the fire alarm system is subject to weekly testing in accordance with BS 5839.

4.5 Emergency Lighting

There is a 3-hour non-maintained emergency lighting system installed within the means of escape that conforms to BS5266.

Within the logbook there is an entry within the Emergency Lighting Monthly Test Record showing that the system was subject to a 3HR test on the 06/06/2022.

There is no record of the monthly function testing of the emergency lighting system. The client should ensure that the emergency lighting system is subject to monthly function testing and an accurate record maintained.

4.6 Fire Fighting Equipment

The individual apartments are protected by a domestic sprinkler system which would appear to conform to BS9251:2014 and was installed and commissioned on 7/4/15 by Compo Fire Systems. The installation is subject to an annual maintenance scheme and servicing by competent engineers with the last service taking place on 21/07/2021. The client should ensure that the sprinkler system is subject to annual servicing.

The client has provided information showing that the smoke ventilation system is subject to annual servicing. The last recorded service was on the 05/04/2022 and the next scheduled service is the 05/04/2023. A label on the operating equipment states that the recommended service frequency is twice yearly. The client should ensure twice yearly servicing of the smoke ventilation system.

4.7 Signage

There are fire exit signs and directional signs throughout the property.

	A general fire action notice and no smoking notices are displayed within the entrance foyer. We noted a ceiling mounted, illuminated directional sign located outside flat 3. The sign should be repositioned so that it is positioned on the wall to make it more easily noticeable.
4.8 Disabled Persons Egress	The property is suitable for disabled access with a level approach and a resident's lift.
4.9 Arson	The risk of an arson attack is considered moderate. The premises are located within a residential side street in a moderate risk area and the refuse containers are stored to the rear of the building away from the main building. Roller shuttered doors to the basement are secured.
4.10 Access for Fire appliances	Access to the buildings for fire appliances is acceptable and in line with the requirements of Approved Document B. Access is also available to the rear of each building. A fire Hydrant is located nearby in Headlam Street within 25 m of the building.

5.0 MANAGEMENT PROCEDURES

5.1 Fire Evacuation Procedures	The fire and evacuation procedure is for a full simultaneous evacuation policy for all residents in a fire situation. The fire assembly point located at the front of the building on Headlam Street a safe distance from the building.
5.2 Fire Logbook	There is a fire logbook on site within the locked fire box which is located within the entrance lobby, second logbook was noted in the basement.

Surveyor Paul Anderson BEng (Hons), MIFireE, FRACS

Signed

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On Behalf of Storm Tempest Ltd

Checked Dave Stilling BSc (Hons) MCIOB, FSIDip, AIFireE, DipFD, CMAPS, FRACS

Signed

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On Behalf of Storm Tempest Ltd

APPENDIX 1
FIRE RISK ASSESSMENT

FIRE RISK ASSESSMENT

		Potential consequences of fire		
Liklihood of fire occuring		***Slight Harm (1)***	***Moderate harm (2)***	***Extreme harm (3)***
	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:

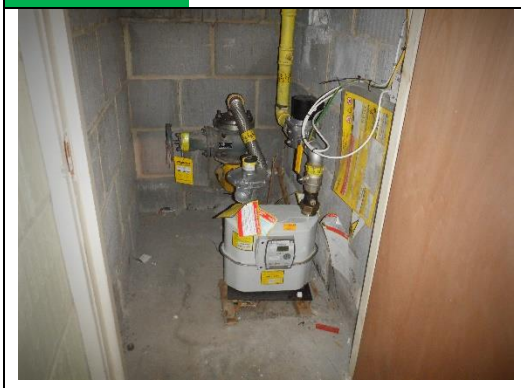
<u>Tolerable Risk</u>

(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	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	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.

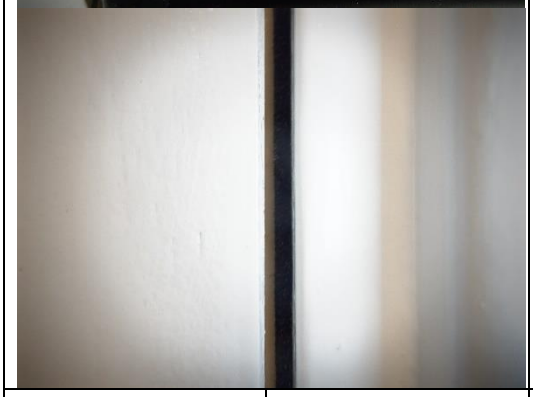
APPENDIX 2
SCHEDULE OF OBSERVATIONS

Fire Hazards

LOW	1	
		**Assessors Observations:** The property gas meter is located within the basement. There was no evidence available to confirm that the gas supply and appliances within the building are subject to appropriate servicing and testing by a person who is, or employed by, a member of a class of persons approved by the HSE under regulation 3 of the Gas Safety (Installation and Use) Regulations 1998 as amended, eg a Gas Safe registered gas engineer.
Date First Identified:	31/10/2022	**Recommended Action:** The client should examine their maintenance records to ensure up to date certification of gas safety inspections for equipment and supply. If this cannot be confirmed the client should arrange to have the gas supply and equipment serviced as a matter of urgency. Failure to do so could result in the increased risk from a fire due to faulty equipment.
Date of FRA	31/10/2022	
Rectify Within: (months)	12	
Budget Cost:	No cost	

Means of Escape

LOW	2	
		**Assessors Observations:** Exit doors are power assisted with electro-mechanical locks without emergency overrides. Any exits fitted with electronic locking mechanisms must fail-safe on power failure and have a standby power supply.
Date First Identified:	31/10/2022	**Recommended Action:** The client should confirm these doors unlock in the event of a power failure.
Date of FRA	31/10/2022	
Rectify Within: (months)	12	
Budget Cost:	No cost	

MEDIUM	3	
 		**Assessors Observations:** Best practice guidance for fire doors stipulates that the gaps at the sides and top of a timber fire door should not exceed 3mm, +/- 1mm. We measured the gaps to several communal doors using a gap gauge and noted that numerous doors have gaps in excess of 4mm.
Date First Identified:	31/10/2022	**Recommended Action:** We recommend that the doors are surveyed and where doors are found to have gaps in excess of 4mm they are rehung so that there are no gaps between the door and frame in excess of 4mm. Failure to do so could result in the means of escape becoming smoke logged.
Date of FRA	31/10/2022	
Rectify Within: (months)	6	
Budget Cost:	£200	

LOW	4	
No photo		**Assessors Observations:** We were unable to access any of the ceiling hatches to inspect the compartmentation within the loft space.
Date First Identified:	31/10/2022	**Recommended Action:** The client should arrange access to the roof space to examine the compartmentation within.
Date of FRA	31/10/2022	
Rectify Within: (months)	12	
Budget Cost:	No cost	

MEDIUM	5	
No photo		**Assessors Observations:** There was no evidence to show that the fire alarm system within the basement is subject to weekly testing.
Date First Identified:	31/10/2022	**Recommended Action:** The client should ensure that the fire alarm system is subject to weekly testing in accordance with BS 5839.
Date of FRA	31/10/2022	
Rectify Within: (months)	6	
Budget Cost:	No cost	

MEDIUM	6	
		**Assessors Observations:** There is no record of the monthly function testing of the emergency lighting system.
Date First Identified:	31/10/2022	**Recommended Action:** The client should ensure that the emergency lighting system is subject to monthly function testing and an accurate record maintained.
Date of FRA	31/10/2022	
Rectify Within: (months)	6	
Budget Cost:	No cost	

MEDIUM	7	
Sprinkler Life Cycle / Sprinkler Cycle Start Date / Sprinkler Cycle Next Date SER / 21/07/2021 / 21/07/2022		**Assessors Observations:** The sprinkler installation is subject to an annual maintenance scheme and servicing by competent engineers with the last service taking place on 21/07/2021.
Date First Identified:	31/10/2022	**Recommended Action:** The client should ensure that the sprinkler system is subject to annual servicing.
Date of FRA	31/10/2022	
Rectify Within: (months)	6	
Budget Cost:	No cost	

MEDIUM	8	
		**Assessors Observations:** The last recorded service of the smoke ventilation system was on the 05/04/2022 and the next scheduled service is the 05/04/2023. A label on the operating equipment states that the recommended service frequency is twice yearly.
Date First Identified:	31/10/2022	**Recommended Action:** The client should ensure twice yearly servicing of the smoke ventilation system.
Date of FRA	31/10/2022	
Rectify Within: (months)	6	
Budget Cost:	No cost	

LOW	9	
		**Assessors Observations:** We noted a ceiling mounted, illuminated directional sign located outside flat 3.
Date First Identified:	31/10/2022	**Recommended Action:** The sign should be repositioned so that it is positioned on the wall to make it more easily noticeable.
Date of FRA	31/10/2022	
Rectify Within: (months)	12	
Budget Cost:	£50	