



Breton House

The City of London Corporation

External Fire Risk Assessment

**Prepared by:
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Site information

Building Name Breton House
Building Ref
Division Department of Community & Children's Services.
Estate Barbican Estate
Property Name Breton House
Property Ref

Name of the person responsible for fire safety (Premises Controller) on site: -

Name of the person: Estates Supervisor Department name: DCCS

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Name of the person responsible for liaisons on fire safety matter with third party:

Name of the person: - Estates Supervisor Department name DCCS

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Person responsible for arranging corrective actions (Competent art 13 RRO): -

**Name of person- Assistant Director, Housing and Barbican Department
name DCCS**

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Event planner for the site when applicable: -

Direct contact details: - Department name

Office Mobile:

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Assessor details

Name of the person: - Russell Peacey
Townsend

Department name: Turner &

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Date of the assessment : 07.07.2022

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Date when finalised : 19/08/2022

Date sent to premises controller: : 19/08/2022

Date of next assessment : 07/02/2023

Report Signed by Assessor

Signature: *Russell Peacey*

Print Name: Russell Peacey

Date: 08/08/2022

Name of Assessors reviewer:

Printed Name: Paul Boughton

Signature of Assessor reviewer

Signature: *Paul Boughton*

Date of Review

Date: 08/08/2022

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Minor amendment history

Details of minor amendment history between detailed full assessment intervals, carried out. (Attached to rear of the main assessment)

Date of assessment	Department Assessor name	Brief details	Department Manager responsible for actioning

Preamble

This Fire Risk Assessment has been prepared to comply with the requirements of the Articles of the Regulatory Reform (Fire Safety) Order 2005.

The assessment process has been developed to meet the requirements of the City of London (CoL).

This Fire Risk Assessment document reflects the significant hazards associated with the operation of this site and identifies suitable controls to minimise risks to health and safety which need to be actioned by the CoL person responsible for undertaking corrective actions.

Executive Summary

The building has been rated as a moderate risk. This is because the flat entrance doors and side cupboards which open into the stairways do not meet current standards, and the flat entrance doors are not fitted with effective self-closing devices.

Overall risk assessment

The overall risk assessment of the building is a **Moderate Risk**.

Overall comment on the Risk Assessment of health and safety. The health and safety arrangements of site were considered appropriate. The site appears to be well managed.

Significant General Safety Issues – None noted.

Survey Methodology

Site information, Specific Site Survey Information and the responses to the Pre-Survey Questionnaire were obtained by email. The response was obtained from David Blane.

A site visit was carried out by Russell Peacey on the 07.07.2022 to undertake a physical survey of the building.

All means of escape were walked to check their availability.

During the initial visit, flat entrance doors were inspected externally to assess their performance, although this did not amount to a full and detailed inspection of the doors and no performance guarantee can be given.

Further checks of a sample of at least 10% of the flat entrance doors will be conducted as part the Type 3 assessment that will be undertaken of the building.

Compartmentation was assessed as far as it was reasonably practicable without carrying out an intrusive survey.

Note – there was no access to the service tunnel or any individual resident store sheds. The service tunnel is considered by a separate FRA.

Relevant documentation was inspected to check compliance with recommended testing

Further information was obtained by informal questioning of staff where necessary.

The Regulatory Reform (Fire Safety) Order 2005 does not require the detailed fire safety provisions of an existing building to comply with any particular standard in order to achieve a satisfactory fire risk assessment outcome. Rather, the Order places a duty on the responsible person to take such general fire precautions as will ensure, so far as reasonably practicable, the safety of his employees and relevant persons who are not his employees.

However, it is good practice to adopt a recognized standard or code of practice to act as a benchmark against which fire precautions should be assessed*.

This particular fire risk assessment made use of the following publications when assessing the suitability of general fire precautions:

- Local Government Association, Fire Safety in Purpose Built Blocks of Flats guidance.
- Approved Document B Volume 1 Dwellings 2019 ed. Incorporating 2020 amendments.
- BS 9991:2015, Fire safety in the design, management and use of residential buildings. Code of practice.
- CP3 Chapter IV Part 1 1971

BS 5839 Part 6:2019, Code of Practice for the Design, Installation, Commissioning and Maintenance of Fire Detection and Fire Alarm Systems in Domestic Premises

City of London Housing residential building fire safety policy.

*Particular care should be exercised when using a design guide for new buildings (such as British Standard 9991 or 9999) as a benchmark for the fire safety of an existing building.

Specific Site Survey Information

Is there evidence on site that fire deficiencies/ faults are addressed in a timely manner?	Yes – no significant faults identified.
Emergency lighting units are charging (diodes normally green or red are illuminated).	No Much of the emergency lighting in the building is provided by “Standby Lighting” (as defined by BS5266 Part 1). e.g. within the stairways. with an alternative power supply provide by a generator. It was not possible to confirm the full locations and adequacy of these installations as part of the fire risk assessment survey. It is understood that CoL are commissioning an emergency lighting survey. See Action 1
Escape routes not blocked & clearly marked.	The maximum travel distance in the plant rooms is beyond current standards for escape in a single direction (9m).

The existing travel distance in a single direction is approximately 18m and requires climbing over services to exit the area.

The plant rooms are remote from the residential areas and persons working in the plant rooms may not be aware of a fire elsewhere in the building, which could potentially compromise their means of escape.

There is a connecting door into the adjacent Lift Motor Room (from which egress can be made by the floor hatch but this is locked from the plant room side and obstructed in the Lift Motor Room by the safety barrier protecting the floor hatch.

See action 2

There is inadequate fire exit signage at the podium level and below. Persons unfamiliar with the building could potentially continue down the uninterrupted stairs to lower levels rather than exiting at the podium or at street level.

See Action 3

CoL has confirmed that the management strategy

	<p>for the secondary means of escape is as follows - <i>All 9 miles of balcony are formally inspected once per year by the House Officer team.</i></p> <p><i>Obstructions are labelled with an orange sticker and residents are given a week to remedy. Items if still present, are then removed. This inspection also reports any faults found.</i></p> <p><i>Additionally, the window cleaning contractors clean all windows every 6 weeks. They are tasked with fault and obstruction reporting as well.</i></p> <p><i>In the resident bulletin CoL regularly run fire safety messages, these include fault reporting and the importance of obstruction free balconies.</i></p>
<p>Fire doors with electrical hold open devices are closed by manual operation at 2200hrs (on final walk round in sleeping accommodation or earlier depending on site specifications).</p>	<p>N/A</p>
<p>Are there any restrictions from Building Control, Planning & Heritage that could have an impact of the premises?</p>	<p>Yes - The building is Grade II* listed.</p> <p>It is understood that CoL has commissioned architectural firm to complete a listed building application in relation to planned fire safety works.</p>
<p>Are Salvage & Business continuity plans up to date and suitable and sufficient.</p>	<p>Yes</p>
<p>Is there any neighboring fire risk that could significantly impact on the future fire safety of the building?</p>	<p>None known.</p>

<p>During the inspection did you identified any cladding which was not already provided to you from the client documentation?</p>	<p>No. The building has a concrete façade. Therefore, a PAS9980 Fire Risk Assessment External Wall (FRAEW) is not considered to be required.</p>
<p>Are the onsite PEEPs and GEEPs templates adequate?</p>	<p>Under current guidance relating to Purpose Built Blocks of Flats with a Stay Put strategy there has been no requirement to complete PEEPs in this type of premises. A recent government consultation published in May 2022 supports this.</p> <p>It is CoL policy that they write to all residents, and where residents identify themselves as persons who may require assistance in an evacuation, they are generally recorded on a Vulnerability List (see below).</p>
<p>Where there any occupant/visitors identified who could be incapacitated and unable to evacuate safely and were not covered under by a PEEPs and GEEPs?</p>	<p>There were no vulnerability lists found in the Premises Information Boxes (PIBs). It is understood that CoL policy regarding PIBs, and their contents including Vulnerability Lists is currently under review and they monitoring ongoing consultations / guidance regarding PEEPs and “Emergency Evacuation Information Sharing”.</p>

Are there inductions for staff and contractors?	It is understood that CoL complete inductions for staff and contractors.
Is there arrangement in place for the safe evacuations of visitors?	N/A for a purpose-built residential block of flats.
Is there a Building Fire Strategy and a Fire Management Plan of the building?	None provided.
During the inspection did you identified any current working practices that could be improved to reduce the fire risk to the property, e.g., removing sources of ignition or reduce the amount of fuel stored?	Housekeeping and storage was considered satisfactory. No unsafe practices noted.
Is there evidence of up-to-date electrical PAT testing in place?	No portable appliances seen in the communal areas.
Is the fire detection & warning system type adequate for the building use?	The building is a purpose-built block of flats with a stay put strategy so is not required to have a communal fire alarm system in the residential areas. Fire alarm systems in the flats are covered by the Type 3 fire risk assessment.
Are the fire action notices compliant provide the reader with relevant instruction and position correctly positioned?	The Fire Action Notices do not describe the Stay Put strategy. See action 4
Are there adequate sign to maintain the exit routes e.g. keep clear, floor marking etc.?	Some fire doors are not signed e.g. Fire Door Keep Closed, or Fire Door Keep Locked, as applicable. It is understood that this is being address by the estate signage project.

	<p>Floor level and flat number signs are not displayed in the stairways, as will be required by current legislation – the Fire Safety (England) Regulations 2022.</p> <p>See action 5</p> <p>The fire fighters entrance via the locked gate to the bin store area is not clearly signed from the street.</p> <p>See Action 6</p>
<p>Are the existing active Fire Protection Measures sufficient for the buildings use</p>	<p>Current systems include the Emergency Lighting (covered above) and the fusible link fire shutters.</p> <p><i>Also see the action regarding the Plant Room.</i></p>
<p>Is there evidence on site of regularly fire door inspections?</p>	<p>It is understood that periodic checks are made of the escape doors from the balconies.</p> <p>Its also understood that the stairway and stairway lobby doors are periodically inspected and where necessary repairs undertaken.</p> <p>It is understood that there is no specific planned preventative maintenance regime for the glazed privacy doors along the linking balconies.</p>

	<p>See Action 7</p> <p>Flat Entrance Door Inspections</p> <p>It was not confirmed how flat entrance doors are inspected. No records were provided.</p> <p>See Action 8</p>
<p>Having checked 10% of fire Door shutters and curtain were any trends identified that could impact the safety of the building (Please list doors and curtain checked)</p>	<p>The flat entrance doors appear to be of the same type. Based on information provided they are considered to be notional fire doors, with no effective self-closing device fitted. Therefore, the flat entrance doors do not comply with current standards and guidance.</p> <p>It is understood that the side cupboards also do not provide adequate fire resistance.</p> <p>It is understood that a programme is in place to replace all the flat entrance doors including the side cupboard doors with certified FD60S door sets fitted with external overhead self-closing devices.</p> <p>See Action 9</p> <p>Fire-fighting stair –</p> <p>The fire doors / partitions protecting the fire fighting stair do not comply with current standards (which</p>

	<p>require 120 minute partitions with FD60S doors). These doors are considered to be notional fire doors only and are fitted with Georgian wired glass transoms and side panels. Several of these door sets have excessive gaps between the meeting edges, and/or do not fully self-close into their frames.</p> <p>See Action 10</p>
Is there evidence of regularly local checks and annual testing by competent?	A PPM schedule was provided, to demonstrate that fire safety systems are subject to a suitable maintenance regime.
Has the site identified emergency responders' routes and fire hydrants and documented these?	Hydrants and Rising Mains are identified on site plans located in the PIB.
Are there any known neighboring activities that could jeopardy a prompt arrival of the emergency responders?	None.
Is there evidence of anti-social behaviour at the site?	None.
Are there any seasonal activities undertaken by the site or naturally occurring events which could affect the fire risk profile of the site e.g., bush fires etc?	None.
Are there any renewable energy source at the site that cannot be readily isolated at source in the event of a fire?	None.
Are back up generation tested to ensure they provided adequate supplies to fire safety devices?	Information provided indicates that the backup generator is under an appropriate maintenance regime.
Is the premises controller aware of the Col guidance on Hot Works?	Understood that contractors are

	responsible for completing a hot works permit.
Are they evacuation procedures for all time the building is in used e.g., out of hours procedures for weekend?	N/A – as a Stay Put strategy.
Upon review of on-site documentations, how long did it take the building to evacuate?	N/A – Stay Put strategy.
Are security and arrangements adequate to deter deliberate fire attempt (e.g. terrorist and arson) in an event?	Yes – the building has secure entrances. External areas are kept free of storage.
Is large lithium-ion battery charged on site?	The car park has electric vehicle charging points. These are outside the scope of this FRA.
When was thermographic inspection last undertaken at site?	None completed.
Has the property had any unintentional fires over the last two years if so, please provide details?	None known.
Were they any significant gaps identified in the compartments (please list details)?	<p>Risers</p> <p>There are inadequately fire stopped service penetrations in several of the riser cupboard running up through the stairways, and also the telecoms cupboard at level 01 in the fire fighting stair.</p> <p>See action 12</p> <p>Lift Landing lights</p> <p>There are light fittings above the lifts. Several of these are not adequately sealed / fire stopped.</p> <p>In other blocks on the Barbican Estate, some of</p>

	<p>these lights were found to be not have adequate separation from the adjacent riser</p> <p>See action 13</p>
<p>How are contractors fire risk controlled locally?</p>	<p>Understood that contractors are responsible for completing a hot works permit.</p>
<p>Is there up to date maintenance records for all fire systems on site?</p>	<p>To review the planned preventative maintenance (PPM) records, a desktop audit was completed with help from the Barbican Estates Property Services Team Manager.</p> <p>This involved checking the full records for a sample of buildings, and also random checks of several individual record types.</p> <p>The PPM audit maintenance checked records for the following fire safety systems (as relevant to this building): Fire Alarm, Dry Rising Mains, Fire Extinguishers, Back-up Generators, Lightning Protection, Sprinklers, Wet Risers, Wet Riser Pumps, Emergency Lighting, Fixed Electrical System, Portable Appliances, Smoke Ventilation, Gas, Firefighting Lifts, Fusible Link Fire Shutters, electric vehicle charging.</p>

The PPM audit found Barbican Estates were able to demonstrate suitable maintenance regimes for the majority of systems, but also identified the following concerns:

- Fire alarm function tests are currently planned at 2-week intervals but sometimes the tests are not being completed due to resourcing issues. It is understood that this is under review and that COL will require a weekly testing regime.
- No 6-month Visual Inspection regime for Rising Mains
- Several months delay in obtaining certificates for Annual Dry Riser Test, Lightning Protection, and sprinkler systems.
- It is understood that approximately 50% of the Barbicans fixed electrical systems (Distribution Boards etc) are considered “unsatisfactory”, and / or have not been electrically inspected for at least 5 years. It is understood that

	<p>non-compliant systems are being rectified on an ongoing basis but that no formal remedial works programme is in place.</p> <ul style="list-style-type: none"> • No PPM regime for most smoke control systems, i.e. Openable Vents (OVs) and Permanently Open Vents (POV) / smoke shafts. This is also covered by a separate action. <p>See Action 11</p>
<p>Is the fire logbook in accordance with col guidance policy</p>	<p>No logbook seen.</p>
<p>Additional question for Housing</p> <p>Is there evidence that when a new tenancy is commenced the operation of the smoke alarm is tested?</p> <p>The evidence should show:</p> <ul style="list-style-type: none"> • Date and time of test • Location of detector/s • Outcome of test <p>Name of person undertaking the test</p>	<p>Not at present but should be included in the void checks.</p> <p>For any actions, refer to the Type 3 assessment.</p>

Description of site

Breton House was completed in 1972. It is a residential tower located on the Barbican Estate. The building is of "Brutalist" architecture and is Grade II* listed. The building is of concrete construction (floors, stairways and walls), and has a flat roof. Breton House is connected at a right-angle to Ben Johnson House.

The residential accommodation sits above plant areas, a cinema and restaurants (levels 01 & 02), with a carpark at level 03. These areas are beyond the scope of this FRA.

There are seven residential floors above podium level, including 12 two storey penthouse flats accessed at the 6th floor. There are no flats below podium level. The building

contains 99 flats and 12 duplexes. The 8th floor contains lift motor rooms and a plant room (ventilation plant and water tanks).

Steps off the podium level lead to three separate stairways (1-39, 40-78, 79-111). Stair 79-111 is a firefighting stair. In 1-39 and 40-78, due to the configuration of the secondary means of escape via Ben Johnson House, on level 6 flats are accessed via protected lobbies, but on other levels they open direct to the stairways. In 79-111 the fire fighting stairway is protected by Georgian wired glass fire doors at each level.

At the seventh floors there is access to the lift motor rooms, a plant room containing water tanks and communal ventilation plant (accessed at the 8th floor landing of 79-111).

Below podium level, the three stairways provide fire exits at street level (02) and descend to the car park levels (03) and finally to the service tunnel at level 04.

The stairways provide access to telecoms cupboards at the mid-landings.

Means of Escape:

The principal means of escape from the flats is via the internal stairwells that descend to the podium or level 02.

Breton House is connected to Ben Johnson House with linking fire escape balconies. These balconies provide a secondary means of escape for some levels of Breton House into Ben Johnson House (but not vice-versa).

The flats on other levels have secondary means of escape via linking balconies that provide access back into the three stairways.

Use of Site

The building is a purpose-built general needs residential block of flats

Passive Fire Precautions

Flats entrance doors

Note - Flat entrance doors were not checked in the open position as part of the type 1 FRA. For more information pertaining to these doors refer to the Type 3 assessment.

The flat entrance doors appear to be of a consistent type. They do not comply with current standards. They are considered to be "Notional" fire doors (as defined by Fire Safety in Purpose Built Blocks of Flats). It is understood that the flat entrance doors are fitted with spring-loaded center hinges but that these are no longer effective self-closing devices.

It is understood that City Of London will be replacing all the flat entrance doors, including side panels and side cupboard doors with certified FD60S door sets.

Construction of flats

The walls between the internally accessed flats and protected means of escape are a concrete/masonry wall which if imperforate should provide at least a notional 60 minutes fire resistance.

Protection of stairways.

In two of the stairways, the flats exit directly into the stairs, other than at the 6th floor where the flats are accessed via lobbies. This does not meet current standards, but will be addressed by the provision of FD60S door sets.

The fire doors / partitions protecting the fire fighting stair do not comply with current standards (which require 120 minute partitions with FD60S doors). These doors are considered to be notional fire doors only and are fitted with Georgian wired glass transoms and side panels. Several of these door sets have excessive gaps between the meeting edges.

It is understood that City of London will be replacing all the communal fire doors, including riser doors, with certified fire door sets.

Communal Ventilation/Shunt Ducts

It is understood from information on other Barbican estate blocks that the communal ventilation ductwork connecting the bathrooms and kitchen of the flats is by a shunt duct system. However, this could not be confirmed as part of this Type 1 assessment.

Smoke Ventilation:

The stairways of 39 & 40-78 are vented via louvered doors onto the seventh-floor balconies.

The lobbied firefighting stair - 79-111 – has a permanently open vent at the head of the stair with manually openable doors into a smoke shaft at each landing. There are also permanently open vents over one of the lift lobby doors on each level that provide access to the escape balconies.

There are ventilated lobbies between the car park and stairwells.

Plant Room

The maximum travel distance in the plant room accessed at the 8th floor landing in the firefighting stair is beyond current fire safety guidance.

Fire Safety Signage

In some areas, fire safety escape signage is considered to be inadequate. This had previously been identified and a “Barbican Fire Sign Strategy” was completed by BB7 in October 2021. This detailed strategy highlights the deficiencies and provides recommendations for new signage.

Facilities for fire fighters

Firefighting Access

Fire fighting access is at street level via the Barbican road tunnel (Beech Street), and Golden Lane.

The fire-fighters entrance is accessed via a bin store area, next to the ramp leading down to the Breton car park.

The fire fighting shaft appears to be fitted with a Fire Lift as would have been required by CP3 Chapter IV.

Site Information / Premises Information Box (PIB)

There is a PIB containing emergency contact numbers, site and building layout plans, located on the ramp leading down to the car park.

Dry Rising Mains

The firefighting stair is fitted with a Dry Rising Main with outlets on the stairway landings. The inlet is accessed at street level by the firefighter entrance in the store area.

Fire Brigade Liaison

It is understood that LFB undertake regular familiarization visits of the Barbican Estate.

Active Fire System

Fire Alarms

In accordance with fire safety guidance, as the building is a purpose-built block of flats designed to support a stay put evacuation strategy, a communal fire alarm system is not provided in the residential areas.

Fire Shutters

There is an automatic fire shutter activated by fusible links protecting the fire fighting stairwell from the carpark.

Emergency Lighting (EML)

Emergency lighting is provided in most areas via “standby lighting” with a backup supply powered by a generator. Self-contained emergency lighting is also provided in some areas.

The adequacy of the emergency lighting could not be confirmed.

Fire Ignition Sources

Within the common parts the most significant ignition sources are the electrics/cabling located within the plant room and service risers. Providing the fixed wiring in the risers is appropriately maintained and the risers are kept sterile this is considered a tolerable risk.

Fire Training

It is understood that the Estates Manager and staff in the estates team are required to complete CoL’s mandatory fire safety training which includes the use of fire extinguishers.

Make an assessment of the fire risk

Likelihood of fire occurring at the property

	Medium	
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Likelihood of fire spreading through the building

	Medium	
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Likelihood of loss of life due to fire

	Medium	
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Formulate and document an action plan

If it is considered that the fire risk and existing fire precautions are such that no improvements are necessary, this should be recorded within the fire risk assessment. The action plan should address both physical fire precautions, managerial issues and should normally prioritise measures so that the appropriate effort and urgency is clear. The measures within the action plan should both practically implement and maintain, taking into account the nature of the building and its occupants. With the best solution to bring about improvement with a possible pragmatic solution.

CoL Specific Hazard identification and Action plan template

Ref No. Location:	Observations	Recommended further action	Risk Rating Low Medium High	Priority Level (please refer to table 1)	Action by Whom & When (Person task with action by premise controller	Date Completed
1.	<p>Much of the emergency lighting in the building is provided by “Standby Lighting” (as defined by BS5266 Part 1). e.g. within the stairways, with an alternative power supply provide by a generator. It was not possible to confirm the full locations and adequacy of these installations as part of the fire risk assessment survey.</p> <p>It is understood that CoL are commissioning an emergency lighting survey.</p>	<p>It is advised that a site wide survey should be undertaken of the emergency lighting systems in the building (and along external means of escape) by a competent person, to assess their adequacy with a “gap analysis” between the as installed standards and those required by BS5266 Part 1 2016.</p> <p>Any installations or enhancements or replacements required to the emergency lighting should be in accordance with BS5266 Part 1.</p>	Medium	D		
2.	<p>The maximum travel distance in the plant rooms is beyond current standards for escape in a single direction (9m). The existing travel distance in a single direction is</p>	<p>In the short term, it is advised that contractors working in the plant room should be advised of the extended travel distance, so they can consider it in their RAMS.</p>	Medium	D		

	<p>approximately 18m and requires climbing over services to exit the area.</p> <p>The plant room is remote from the residential areas and persons working in the plant room may not be aware of a fire elsewhere in the building, which could potentially compromise there means of escape.</p> <p>There is a connecting door into the adjacent Lift Motor Room (from which egress can be made by the floor hatch but this is locked from the plant room side and obstructed in the Lift Motor Room by the safety barrier protecting the floor hatch.</p>	<p>It is advised that an access permit is implemented that requires :</p> <ul style="list-style-type: none"> • no lone working. • opening up the connecting door to the lift motor room (fitting a thumb turn lock on the escape side of the door) to provide an alternative escape route (it is anticipated that the hatch barrier which partially obstructs the escape route could be negotiated in an emergency). <p>If the secondary exit to these areas cannot be reinstated it is advised that in the longer term it an L5 fire alarm fire alarm system is installed (as defined by BS5839 Part 1) with automatic detection in the plant room, lift motor rooms, and the heads of the stairways, with Visual Alarm devices (VADs) installed in the plant room and lift motor rooms.</p> <p>Illuminated exit signs are installed at the plant room exits.</p>				
3.	<p>There is inadequate fire exit signage at the podium level and below.</p>	<p>As part of the fire/escape signage project which CoL have</p>				

	Persons unfamiliar with the building could potentially continue down the uninterrupted stairs to lower levels rather than exiting at the podium or at street level.	commissioned, consideration should be given to the fire exits at podium level to ensure that they are clearly signed, in accordance with BS5499.				
4.	The Fire Action Notices do not describe the Stay Put strategy.	<p>The Fire Action Notices (FANS) should be replaced with signs that describe the Stay Put Strategy.</p> <p>FANS should at least be displayed at all the entrances to the building.</p> <p>It is understood this will be completed as part of the CoL signage project.</p>	Low	D		
5.	Floor level and flat number signs are not displayed in the stairways, as will be required by current legislation – the Fire Safety (England) Regulations 2022.	<p>As part of the signage project, it is advised that floor level number and flat number signage is brought in line with current standards i.e. Approved Document B 2019 ed. incorporating 2020 amendments – “Wayfinding signage for the fire service”.</p> <p>The requirement is:</p>	Low	D		

To assist the fire service to identify each floor in a block of flats with a top storey more than 11m above ground level, floor identification signs and flat indicator signs should be provided.

The floor identification signs should meet all of the following conditions.

- a. The signs should be located on every landing of a protected stairway and every protected corridor/lobby (or open access balcony) into which a firefighting lift opens.
- b. The text should be in sans serif typeface with a letter height of at least 50mm. The height of the numeral that designates the floor number should be at least 75mm.
- c. The signs should be visible from the top step of a firefighting stair and, where possible, from inside a firefighting lift when the lift car doors open.
- d. The signs should be mounted between 1.7m and 2m above floor level and, as far as practicable, all the signs should be mounted at the same height.

		e. The text should be on a contrasting background, easily legible and readable in low level lighting conditions or when illuminated with a torch.				
6.	Although it is understood that LFB are familiar with the site, the firefighter entrance via the locked gate to the bin store area is not clearly signed from the street (green emergency services could easily be missed).	Clear signage should be provided to the firefighting entrance, from the access road.	Low	D		
7.	It is understood that there is no specific planned preventative maintenance regime for the glazed privacy escape doors/screen along the linking balconies. Weather conditions can affect the door and fixings, and therefore the ease of operation of escape device.	It is advised that a planned preventative maintenance regime is put in place to ensure that the glazed privacy escape doors/screens remain openable at all times i.e., fixings / bolts remain in a good and easily openable condition. It is recommended the doors be inspected at least annually.	Low	D		
8.	It was confirmed that there is no current flat entrance door inspection regime. The Fire Safety Act 2022 has confirmed that Flat Entrance Doors fall within the scope of the Regulatory Reform (Fire Safety) Order 2005.	Ensure that a long-term programme is in place for the completion of: <ul style="list-style-type: none"> • quarterly communal fire door inspections, and • annual flat entrance door inspections (where 	Low	D		

		<p>leaseholder cooperation will need to be sought)</p> <p>in accordance with the Fire Safety (England) Regulations 2022, which come into effect January 2023 and any associated guidance.</p> <p>Inspections should ensure that the doors remain in good condition and an effective self-closer is in place.</p>				
9.	<p>The flat entrance doors appear to be of the same type. Based on information provided they are considered to at best be notional fire doors, with no effective self-closing device fitted. Therefore, the flat entrance doors do not comply with current standards and guidance.</p> <p>It is understood that the side cupboards also do not provide adequate fire resistance.</p> <p>It is understood that a programme is in place to replace all the flat entrance doors including the side cupboard doors with certified FD60S door sets fitted with external overhead self-closing devices.</p>	<p>Flat entrance doors are to be renewed as part of CoL's door replacement programme which is replacing the doors with FD60S fire door sets.</p> <p>As an interim measure, CoL should at least ensure that all existing notional flat entrance doors self-close by installing overhead self-closers the flat entrance doors.</p>	Medium	E		

10.	<p>Fire-fighting stair –</p> <p>The fire doors / partitions protecting the fire fighting stair do not comply with current standards (which require 120-minute partitions with FD60S doors). These doors are considered to be notional fire doors only and are fitted with Georgian wired glass transoms and side panels. Several of these door sets have excessive gaps between the meeting edges, and / or do not fully self-close into their frames.</p>	<p>Communal doors have already been identified as requiring replacement and will be renewed as part of CoL's fire door replacement programme.</p> <p>It is advised that FD60S doors are fitted with at least REI 60 rated side panels and transoms to the partitions that separate the fire fighting stair from the lift/accommodation lobbies.</p>	Medium	E		
11.	<p>The PPM audit found Barbican Estates were able to demonstrate suitable maintenance regimes for the majority of systems, but also identified the following concerns:</p> <ul style="list-style-type: none"> • No 6-month Visual Inspection regime for Rising Mains • Several months delay in obtaining certificates for Annual Dry Riser Test, Lightning Protection, and sprinkler systems. • It is understood that approximately 50% of the Barbicans fixed electrical systems (Distribution Boards 	<p>Barbican Estates should review their planned preventative maintenance arrangements to ensure suitable cleaning, inspection, test and maintenance (as relevant) regimes are in place for the following:</p> <ul style="list-style-type: none"> • Weekly Fire Alarm Tests (per BS5839 Part1) • Six-monthly visual inspection of Rising Mains (per BS9990) • It is advised that a PPM regime is developed for Smoke control systems i.e. 	Medium	C		

	<p>etc) are considered “unsatisfactory”, and / or have not been electrically inspected for at least 5 years. It is understood that non-compliant systems are being rectified on an ongoing basis but that no formal remedial works programme is in place.</p> <ul style="list-style-type: none"> No PPM regime for most smoke control systems, i.e. Openable Vents (OVs) and Permanently Open Vents (POV) / smoke shafts. This is also covered by a separate action. 	<p>Permanently Open Vents (POV) / smoke shafts</p> <ul style="list-style-type: none"> It is advised that a programme of remedial works is developed for fixed electrical systems that are considered to be unsatisfactory It is advised that Barbican Estates liaise with their suppliers to ensure PPM certificates are provided in a timely manner, in order to demonstrate compliance to relevant stakeholders. 				
12.	<p>Risers</p> <p>There are inadequately fire stopped service penetrations in several of the riser cupboard running up through the stairways, and also in the telecoms cupboard at level 01 in the firefighting stair.</p>	<p>A compartmentation survey should be made of all service risers & cupboards to ensure that service penetrations are fire stopped using appropriate proprietary materials to provide 60 minutes fire resistance.</p>	Medium	D		
13.	<p>Lift Landing lights</p> <p>There are light fittings above the lifts. It could not be confirmed if these lights are adequately sealed / fire stopped.</p>	<p>All of the lift landing lights should be checked and where gaps are identified they should be sealed to ensure that there is at least 30 minutes imperforate</p>	Low	D		

	In other blocks on the Barbican Estate, some of these lights were found to be not have adequate separation from the adjacent riser.	compartmentation between the riser and lift lobby.				
14.	The Fire Safety (England) Regulations 2022 place additional requirements on CoL as a Responsible Person under the Regulatory Reform (Fire Safety) Order 2005.	<p>CoL should ensure that they have suitable arrangements in place to discharge their responsibilities under the Fire Safety (England) Regulations 2022.</p> <p>The regulations will come into force on 23 January 2023 following the publication of supporting guidance which is due later in 2022.</p> <p>In summary –</p> <p>For high-rise residential buildings (a multi-occupied residential building at least 18 metres in height or 7 or more storeys), responsible persons must:</p> <ul style="list-style-type: none"> share electronically with their local fire and rescue service (FRS) information about the building's external wall system and provide the FRS with electronic 	Medium	D		

		<p>copies of floor plans and building plans for the building</p> <ul style="list-style-type: none">• keep hard copies of the building's floor plans, in addition to a single page orientation plan of the building, and the name and UK contact details of the responsible person in a secure information box which is accessible by firefighters• install wayfinding signage in all high-rise buildings which is visible in low light conditions• establish a minimum of monthly checks on lifts which are for the use of firefighters in high-rise residential buildings and on essential pieces of firefighting equipment• inform the FRS if a lift used by firefighters or one of the pieces of firefighting equipment is out of order for longer than 24 hours				
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		<p>For multi-occupied residential buildings over 11 metres in height, responsible persons must:</p> <ul style="list-style-type: none"> undertake quarterly checks on all communal fire doors and annual checks on flat entrance doors <p>In all multi-occupied residential buildings, responsible persons must:</p> <ul style="list-style-type: none"> provide residents with relevant fire safety instructions and information about the importance of fire doors <p>The Fire Safety Act (FSA) clarifies the scope of the Fire Safety Order to make clear it applies to the structure, external walls (including cladding and balconies) and individual flat entrance doors between domestic premises and the common parts.</p>				
15.	The firefighting access door and gate to the bin store area are fitted with a lock. No keys are provided in the Premises Information Box (PIB).	It is advised that keys to the buildings access door(s) and any areas and equipment that firefighter may need to access / operate (For example, the smoke	Low	D		

	<p>The OVs to the smoke shaft within the firefighting stair require a T bar to open the smoke vent.</p> <p>It is understood that new secure PIBs will be installed by CoL.</p>	<p>shafts) are provided in the new secure Premises Information Boxes.</p> <p>For clarity, the PIB should be labelled with the building name.</p>				
16.	<p>The fire-fighters access, including access to the Dry Riser inlet is via a bin store area. The area is accessed via a locked gate but is open sided so is potentially vulnerable to arson or a discarded cigarette etc.</p>	<p>If not previously completed, it is recommended that LFB are consulted on this situation to confirm whether they are satisfied with the arrangement of the bins being stored in this area.</p> <p>It is advised that an alternative location is sought for the bin store, or the bins are physically segregated and protected from any external access.</p> <p>CoL should also ensure that at all times the access to the Dry Riser Inlet is kept clear.</p>	Medium	D		

Action time frame in accordance with CoL service level agreements

Table One

<i>Priorities for remedial action listed below;</i>	<i>Recommend priority code & time frame</i>	
Priority Action AA	Immediate action taken whilst on site	(P1) 2 hour attendance
Priority Action A	Immediate action required	(P2) 24 Hours
Priority Action B	Action required in the short term	(P3) 4 Days
Priority Action C	Action required in the short term	(P4) 28 Days
Priority Action D	Remedial action required in the long term	3 Months
Priority Action E	Action to be consider when refurbishing	Project Planning Stage
Priority Action H/S	Health & Safety Information	(P2) Action 24 hrs.
P3A over weekend when attendance will wait until Monday for attendance not warranting a 24hr P2		

Additional Comments to the assessment:

Fire Risk Assessment reviews (CoL use only)

This Fire Risk Assessment should be reviewed annually and whenever there is a material change in the use of the premises or part of the premises (including numbers of occupants) or when significant structural or layout changes to the premises are proposed or carried out. The table below is provided for the 'Responsible Person' at the premises to maintain a record of reviews and provides space for simple comments. If the review indicates significant change then a new complete Fire Risk Assessment by our professional assessment providers should be carried out and fully documented.

Date	Reason for review	Results / Comments	Name, Position & Signature

Appendix One

Pre-Survey Questionnaire

Information Required Pre-Site Visit (21 days)

Not provided.

Annex A – Actions outstanding from previous fire risk assessment

<p><i>Ref Number:</i></p> <p><i>Location:</i></p>	<p><i>Previous/Outstanding Action</i></p>	<p><i>Turner & Townsend Comments</i></p>
<p>2.4</p>	<p>Evidence was not available to confirm the fixed wiring installation is subject to an appropriate programme of periodic testing. Ensure a robust programme of 5 year fixed wiring testing is Implemented.</p>	<p>See Action 11 in this FRA</p>
<p>13.1</p>	<p>Due to the survey being undertaken during daylight hours it was not possible to determine If an adequate provision of emergency lighting exists throughout the premises. A survey should be undertaken by a competent person; with any identified issues being rectified to ensure the system complies with BS 5266.</p>	<p>It was not possible to confirm the adequacy of the emergency lighting, particularly any standby lighting.</p> <p>See Action 1 in this FRA</p>
<p>15.1&15.2</p>	<ul style="list-style-type: none"> • The flat entrance door is D consistent with those throughout the block. It does not comply with current standards. • It appears to be of substantial construction, without substantial rebates, smoke strips or intumescent seals, hinges x3 do not appear to be of fire resisting standard. The centre hinge appears to be of spring loaded design, to assist with door closing; however it was noted that this arrangement did not result In the door self-closing effectively. Due to the opportunity for means of escape in 2 directions; this situation Is considered acceptable. Consideration should be given to upgrading/replacing doors on the means of escape routes; to current standards as part of any future refurbishment program. Consideration should be given to implementing a robust program of testing and servicing for spring loaded hinges; 	<p>This is still the same. City of London has confirmed that all flat entrance doors will be replaced.</p> <p>See Action 9 in this FRA</p>

	to ensure final exit doors close effectively.	
17.2	It was noted that numerous doors to electrical intakes, service risers, plant rooms, stores and similar; within escape routes are not provided with 'fire door keep locked shut' signs. • Lobby doors are not provided with 'fire door keep shut signs'. • 'Do not use lift in case of fire' signs are not displayed adjacent to lift enclosures. Ensure appropriate signs are displayed.	<p>This is still the case.</p> <p>In some areas, fire safety escape signage is considered to be inadequate. This had previously been identified and a “Barbican Fire Sign Strategy” was completed by BB7 in October 2021. This detailed strategy highlights the deficiencies and provides recommendations for new signage.</p>
17.5	Fire action notices are inconsistently displayed In communal areas and the guidance is ambiguous in respect of a 'stay put' evacuation strategy. Consideration should be given to replacing this signage with more definitive instructions.	<p>Fire action notices are still considered to be inadequate.</p> <p>See action 4 in this FRA.</p>
19.4	It was noted that portable fire Priority extinguishers are provided within the communal areas. Typically fire extinguishers are not provided within this type of property as residents are unlikely to have been appropriately trained. Consideration should be given to their removal.	Fire extinguishers had been removed from the communal areas.
20.2	As part of the fire risk assessment process a documentation audit was undertaken In respect of the specific premises. The brief was to randomly sample 6 categories from a detailed list. In this Instance the only records available at the Estate Office were as follows; • Whilst it is evident that Allied Protection are maintaining fire alarm systems: contractors are not updating documented records. • Records were not available to evidence the recently implemented program of fire door inspections. • Fire stopping registers are not in place; this	See action 11 in this FRA

	<p>has specific relevance in respect of PDA's & EDA's. • Portable firefighting equipment is out of test date; this situation is expected to be resolved in response to relevant guidance provided elsewhere in this report. • Records of fire brigade operation attendances are not maintained. • Various Col FS guidance notes. Priority C 12 It is recommended that robust arrangements be implemented to ensure the requirements of Col Guidance Note on Fire Log Books on Col premises are achieved.</p>	
20.6	<p>The emergency services box contained; 1) Estate block plan map. 2) Useful telephone numbers list. 3) Block plan. Consideration should be given to Liaising with London Fire Brigade to rationalise/standardise the information contained within boxes.</p>	<p>The contents of the PIB boxes are under review by COL.</p>
22.4	<p>It was noted that portable fire extinguishers within communal areas and plant rooms (provided for use by competent persons) have not been subject to servicing within the past 12 months. Subject to comments in 19.4, ensure all such equipment is robustly maintained</p>	<p>City of London were completing a Fire Extinguisher survey, and ongoing servicing programme at the time of this assessment.</p>

Annex B - Unintentional fires during the last two years

None known.

Annex C – maintenance records of fire systems

Fire Safety Documentation		
Documentation	Available to view	Evidence viewed
Fire Safety Strategy Report	No	No Fire Strategy available.
Updated Fire Safety Strategy Report and/or Fire Safety Strategy Technical note (reflecting any changes, refurbishments)	No	See above
Fire Compartmentation Drawings	No	None provided.
Fire Risk Assessment report	Yes	The previous FRA was undertaken by Frankham RMS in January 2018.
Building (floor plan) drawings	Yes	Available in the PIB boxes.
BS 9999:2017 – Fire safety in the design, management and use of buildings. Code of practice	N/A	BS 9999 is not applicable to residential blocks of flats.
BS 9997:2019 Fire Risk Management system.	N/A	
Third-Party Statutory Examination/Testing Certification		
Equipment	Available to view	Contractor / Issue date(s) / Frequency
Automatic Fire detection and alarm	N/A	No communal fire alarm installed.
Emergency and exit lighting	Yes	Annual duration testing. Periodic testing in accordance with BS5266 Part 1
Fire extinguishers and fire blankets	Yes	The fire extinguishers should be maintained annually. Ongoing renewal and maintenance plan demonstrated.
Sprinklers	N/A	Covered by Bretton Carpark FRA.
Fire dampers	N/A	No fire dampers identified

Gas suppressant systems	N/A	No gas suppression systems in the CoL controlled areas of the building – Any CO2 systems are under 3 rd party control.
Lightning protection system (LP)	Yes	Annual Lightning Protection Test and Inspection.
Gas heating/boiler plant safety checks	N/A	No communal gas system.
Gas cooking appliances	N/A	No gas cooking facilities within the common areas.
Fixed mains electrical installation	No	5-Year Fixed Electrical Inspection. See action 11
Portable appliance testing	N/A	No portable appliances identified in communal areas.
Fire rated shutters	N/A	Fire shutters are considered to be in the car park so covered by a separate FRA.
Evacuation aids	N/A	There are no evacuation aids.
Firefighter's Lifts	N/A	No fire fighters lifts. The fire fighting shaft appears to be fitted with a Fire Lift as would have been required by CP3 Chapter IV.
AOC control system	N/A	
Fire Hydrant testing (within the curtilage of the premises)	N/A	The hydrants are located on the public highway
Wet risers	N/A	No Wet Riser
Dry risers	No	6- Monthly Visual Inspection and Annual Pressure Test. No 6M Visual Inspection Record– See Action 11

In-House Documentation		
Equipment	Available to view	Who by / Date(s) / Frequency
Fire alarm call point activations	No	No fire alarm
Internal fire rated doors	No	Per Fire Safety (England) Regulations 2022 - Quarterly Inspection of communal fire doors and Annual Inspection of flat entrance doors.
Fire exit doors	Yes	3-Monthly check of fire exit doors, especially on external doors not used for other purpose.
Emergency lighting	Yes	3-Monthly emergency lighting test. 1 Hour Duration.
Fire extinguishers	Yes	Fire extinguishers Routine check (location, pressure gauge and tags)
Fire sprinklers pump set weekly checks	N/A	Covered by Breton Carpark FRA.
Fire dampers	N/A	No dampers identified with the building
Fire evacuation drills	N/A	Not applicable in a residential block of flats
Evacuation aids	N/A	Not applicable in a residential block of flats

Fire Safety Training Records		
Equipment	Available to view	Evidence
Duty Holder – Fire (Scotland) Act 2005 duties and responsibilities	N/A	
Competent Person – Fire (Scotland) Act 2005 duties and responsibilities	N/A	
Fire Incident Controller	N/A	
Fire Warden / Marshal	N/A	
Use of fire extinguishers/blankets (Article 21-Training of the Regulatory Reform Fire (Scotland) Act 2005 2005))	Yes	It is understood that this is covered as part of CoL periodic fire safety training which all employees must complete.
Employee fire safety	Yes	No records were seen on site as these are held centrally. However, it is understood that periodic fire safety training is undertaken.
New employee – fire safety induction	Yes	It is understood that that all employees must complete online fire training as part of the induction process.
Fire sprinkler operational checks	N/A	Covered by Bretton Carpark FRA.
Evacuation Aids	N/A	