Unit 4a, Darklake View
Estover
Plymouth
PL6 7TL

Document Version 6
Survey Date 23/08/2024
Suggested Review Date 23/08/2025

PAS 9980 STEP 2-5 (FRAEW)

MOUNTFORD HOUSE

Mountford House
Glover Street
West Brom
B70 6DS

This report must be retained on the premises for inspection by statutory authorities.
Management is responsible for actions required in this report and should brief all staff on the report's findings.

Enforcement Officers are requested to note that this document is designed to informed the Lessee Tenant Manager of the existing Fire Safety Arrangements and any Significant Findings. Issues relating to the control and management of fire safety management for fire safety measures can be found in in-house documents such as:

Fire Policy and Testing and Maintenance records

Table of Contents

Table of Contents Continued

Summary

PAS 9980 Step 2-5 (FRAEW)

Assessment and Certificate Reference
RB-JQU4KM

Assessed On, By
23/08/2024, Douglas Murray (Building Safety Consultant)
(BSc Building Surveying, ABBE DipFRA, AIFireE, AssocRICS, MFPA)

Produced For the Responsible Person
Sandwell Metropolitan Borough Council

Specification Conforms To
Our own internal quality system.

Assessment Scope
Assessment applies only to the building specified.

Recommended Review Date
23/08/2025

Assessed Property

Property Name
Mountford House

Property Reference
RB-MNXVH2

Address
Mountford House
Glover Street
West Brom
B70 6DS

Assessing Organisation
Firntec Ltd
4a Darklake View, Estover, Plymouth, Devon, PL6 7TL
0345 646 1566 — www.firntec.com

Abbreviation/ Term Definition

- **ACM** Aluminium Composite Material
- **ADB** Approved Document B
- **AOV** Automatic Opening Vent
- **BSA** Building Safety Act 2022
- **Cavity Barrier** Product used to close or separate a concealed space to restrict fire and smoke
- **Close State Cavity Barrier** Cavity Barrier designed to be fitted under compression/friction between inner and outer surfaces of a cavity to seal it
- **Open State Cavity Barrier** Cavity Barrier that is open to allow ventilation/drainage of cavity in open state but closes when a developing fire occurs (e.g., intumescent strip)
- **Combustible** Not classified as A1 OR A2 in accordance with BS EN 13501-1: 2018, and not meeting definitions of non-combustible or limited combustibility
- **Compartmentation** Subdivision of building by fire resisting walls and/or floors for limiting fire spread
- **EPS** Expanded Polystyrene
- **EWS1** External Wall System Fire Valuation Form
- **FB** Fire Barrier - Separating element with fire integrity for a specific time
- **Fire Stop** Barrier seal to close an imperfect fit in design between elements of components to stop the spread of fire
- **FRAEW** Fire Risk Appraisal of External Walls
- **FRA** Fire Risk Assessment
- **FRS** Fire and Rescue Services
- **FSA** Fire Safety Act 2021
- **HPL** High Pressure Laminate
- **HRR** Heat Release Rate
- **MDF** Medium Density Fibre Board (a type of manufactured timber)
- **PIR** Polyisocyanurate Rigid Foam
- **PUR** Polyurethane Foam
- **RP** Responsible Person
- **RRFSO** Regulatory Reform (Fire Safety) Order 2005
- **SFS** Steel Framing System
- **SIB** Secure Information Box

Statement of Competency

Statement of Competency to Carry out a Fire Risk Appraisal of External Wall Construction

Within PAS 9980:2022 it requires that a person conducting the FRAEW are competent to do so in accordance with Annex H and to demonstrate the expected skill sets of competent external wall assessors.

This is our Statement of Competence to carry out a Fire Risk Appraisal of External Wall construction.

We confirm that they have:

a) Read and understood the commentary and provisions relating to the competence of external wall assessors set out in Section 8 and Annex H of PAS 9980:2022;

b) Adequate and relevant competence to undertake the FRAEW;

c) Sufficient knowledge, skills and experience in relation to fire safety of external walls to be able to complete an assessment at the level required;

d) The relevant skill, knowledge, and experience to manage and interpret the results of intrusive inspections; and

e) The competence to appraise and assess the nature of external wall construction in terms of fire performance and provide an opinion on the risk.

f) No conflicts of interest of any kind, other than any which are disclosed in the report.

g) The conclusions of the report are the author's independent assessment of the risks and remedial actions and have not been influenced in any way by the opinions or actions of others except where stated.

Terms of Reference

Particulars

This FRAEW report follows the guidance in accordance and reference to PAS9980:2022 Fire Risk Appraisal of External Walls construction and cladding of existing blocks of flats – Code of Practice.

Limitations

The FRAEW addresses life safety only in relation to the appraisal of the external walls of the building; and in considering risk, this is only in relation to the threat to the occupants in the building and not in terms of property damage or other potential objectives, such as safety of firefighters.

The FRAEW is not aimed at confirming compliance with building regulations, either at the time of construction, or currently.

The FRAEW cannot provide certainty and being risk-based report, it is, therefore, to a degree, reliant on professional judgement in its assessment and in the conclusions drawn within the report.

The FRAEW report is to be reviewed:

a) if significant changes/repairs have been made to the external wall; and/or

b) in the event of a fire incident, if the fire involved the external wall construction; and/or

c) if there are any circumstances, depending upon the nature of the construction, the extent of available knowledge in relation to the particular materials, components and systems used on the building or the degree of uncertainty over the findings, which suggest review is appropriate. In these cases, the report will include a clear explanation as to why periodic review is necessary and include a suggested review date."

If more definitive information becomes available subsequent to the FRAEW on how particular external wall materials, components and systems behave in fire, or there are changes in the fire performance data relied upon in an FRAEW, such information will be expected to take precedence.

Assumptions

It is understood that the absence of evidence, is not evidence of the absence; therefore, within the FRAEW report suitable caveats or assumptions may be applied in arriving at a risk rating, for example, in relation to:

a) the extent of sampling carried out.

b) the accuracy of information upon which it has been necessary to rely, especially where it has not been possible to verify the information though site survey and inspection.

c) the extent of the content and detail within the report; and

d) the limitations at the time of the FRAEW of available knowledge on the fire performance of the materials, products and systems forming the external walls of the building.

Any caveats or assumptions made within the report are based on the most onerous and worst-case scenarios.

Statement of Intent

The investigation and writing of this FRAEW report has been commissioned at the clients request in line with PAS9980: 2022, which covers residential buildings of all heights with 2 or more dwellings, including hotels, with the aim to make sure that residents of multi-occupancy buildings are safe.

The Fire Safety Act 2021 also puts a legal responsibility on the responsible person where a building contains two or more sets of domestic premises to identify the building's structure and external walls and any common parts including doors or windows in those walls, and anything attached to the exterior of those walls (including balconies).

Executive Summary

External Wall Systems and Attachments on the Building

10 areas were inspected to gain data about the building's wall constructions. See the Inspections section of this report for full inspection details.

The table below outlines the ratings of the various wall systems and constructions to the property. Each element is explained in more detail further within this report.

8 Items	Effect	Risk
Wall Construction Wall Type 1 brickwork over mineral wool insulation (QH5TX6)	Positive	Low
Wall Construction Wall Type 2 - render over mineral wool insulation (G7G3IX)	Positive	Low
Wall Construction Wall Type 3 - HPL panels (2NPQ7S)	Neutral	Medium
Attachment Cantilever Balcony (2JDEMW)	Neutral	Medium
External Window Top, Mid, Side Hung Casements (JDGK1L)	Positive	Low
External Window Top, Mid, Side Hung Casements (FZI3N3)		
External Door Single Leaf Entrance Doors (BG6AT2)	Positive	Low
External Door Single Leaf Entrance Doors (R538KM)	Positive	Low

In accordance with the PAS 9980 Guidance, any items of construction which are considered as “Medium Risk” should be subject to periodic review, to ensure that conditions do not change, such that the risk may be upgraded to high, prompting the requirement for remediation.

Risk Factor Analysis

The risk factor analysis is a three-stage process; rating the wall construction fire performance **(1)**, façade configuration **(2)**, and fire strategy/fire hazards **(3)** on a sliding risk scale. The risk scale is expressed as "high", "medium" and "low" in a continuum, left to right, from "high" risk to "low" risk. At the furthest left end of the "high" risk band, the risk is deemed to be the highest, reducing as the risk is positioned to the right of this.

Starting with high as a base line, **Stage 1** rates the fire performance risk factors of the wall construction.

Once fire performance factors have been taken into account, **Stage 2** overlays the risk factors of the façade configuration to determine the effect this has on where the risk now lies on the scale.

The final **Stage 3** overlays the risk factors arising from consideration of the fire strategy and fire hazards (including limitations of fire and rescue service intervention).

Risk Factor Analysis 1

This analysis looks at façade configuration **AWD1BW** which includes wall construction **QH5TX6**.

Conclusion: In the event of a fire, fire spread is likely to be at a lower rate within expectations for a building of this height, but nevertheless, tolerable rate, given the circumstances at the building in question; and/or

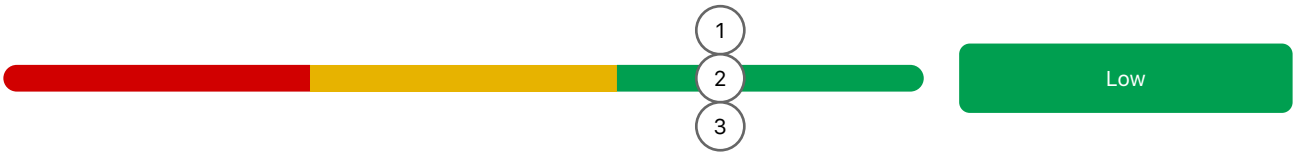
a) fire spread is unlikely to give rise to widespread secondary fires resulting in occupants being significantly harmed or prevented from escaping.
b) fire is unlikely to spread in such a way that the communal means of escape will be compromised before occupants can safely use them to escape.

Risk Factor Analysis 2

This analysis looks at façade configuration **2B9A2V** which includes wall construction **G7G3IX**.

Conclusion: In the event of a fire, fire spread is likely to be at a lower rate within expectations for a building of this height, but nevertheless, tolerable rate, given the circumstances at the building in question; and/or

a) fire spread is unlikely to give rise to widespread secondary fires resulting in occupants being significantly harmed or prevented from escaping.
b) fire is unlikely to spread in such a way that the communal means of escape will be compromised before occupants can safely use them to escape.



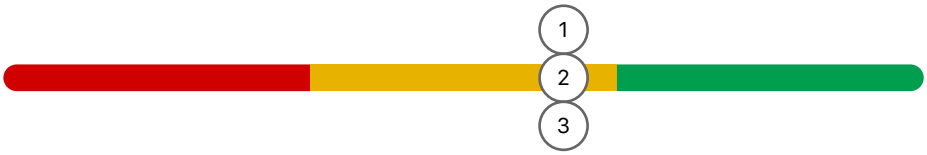
Risk Factor Analysis 3

This analysis looks at façade configuration **YXVA68** which includes wall construction **2NPQ7S**.

Conclusion: In the event of a fire, fire spread is likely to be at a lower rate within expectations for a building of this height, but nevertheless, tolerable rate, given the circumstances at the building in question; and/or

a) fire spread is unlikely to give rise to widespread secondary fires resulting in occupants being significantly harmed

or prevented from escaping.
b) fire is unlikely to spread in such a way that the communal means of escape will be compromised before occupants can safely use them to escape.



Medium

Overall Building Risk Rating

Medium

Our professional opinion is that overall this Building represents a Neutral PAS9980:2022 Outcome.

Recommended Remediations

No recommended remediations identified.

Recommended Interim Measures

No recommended interim measures identified.

Fire Strategy

Fire Strategy & Hazard Risk Factors

F.1 Occupancy

General needs housing

Neutral

F.2 Evacuation

Stay put
A ‘stay put’ policy is adopted for the flats. That is, in the event of a fire in a flat, the occupants of that dwelling will evacuate, having been alerted by their own domestic fire detection and alarm system, and request fire service attendance. All other occupants will remain in their flat unless they are threatened by fire and smoke or are advised to evacuate by the fire service. The ‘stay put’ evacuation policy relies heavily on adequate compartmentation being provided; fire should not spread from one dwelling to another, including by means of the external fabric of the building

Neutral

Photo Ref. 1

F.3 Escape Route Design

Single staircase, with lobby approach

Negative

Photo Ref. 2, 3, 4, 5, 6, 7, 8, 9, 10, 11

F.4 Compartmentation

Adequate compartmentation in line with the expectations for a block of flats

Positive

F.5 Smoke Control

Arrangements in which openable windows, AOVs or inlets and outlets of mechanical systems are of a satisfactory proximity aways from combustible cladding; or that fire and smoke spread from the external envelope would be unlikely to compromise the effectiveness of the smoke control system or allow a route for fire spread back into the building

Positive

Photo Ref. 12, 13, 14

F.6 Fire Alarm & Detection

Fire detection in flats is limited to hard-wired or battery-operated smoke alarms.
The detection system varies between LD1 and LD2 standards in sampled flats:
LD1 (highest standard) – Smoke detection in all rooms except wet rooms.
LD2 – Smoke detectors in hallways and living rooms, with heat detectors in kitchens.
No fire alarm system is installed in communal areas.
Automatic Opening Vent (AOV) detection:
Smoke detectors are installed in lobbies, stairwell landings, and the area between the lobby/stairwell & chute room doors on floors 1 to 16.
These detectors are solely for activating the AOV system and do not provide a general fire alarm function.

Positive

F.7 Fire Suppression

Sprinkler (deluge) system detection:
The bin store has a deluge system that is activated by smoke detection.
The control panel for this system is located in the ground floor electrical service cupboard.

Positive

F.8 - Firefighting Facilities

Adequate access for firefighting vehicles
NOTE This is where access is possible in line with benchmark guidance on access for firefighting vehicles, taking into account the size of the building (floor area), height of the building and whether fire mains are present in the building.

Photo Ref. 15, 16

Positive

F.9 Rising Mains

A dry riser is installed on each floor level and at ground

Positive

F.10 Lifts Used By Firefighters

Suitable firefighting lift present

Photo Ref. 17, 18, 19, 20, 21

Positive

Photos


1
Even


2

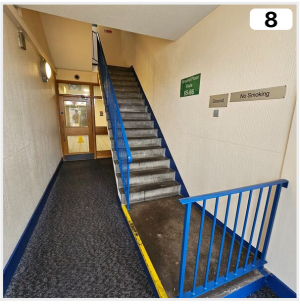

3


4


5


6


7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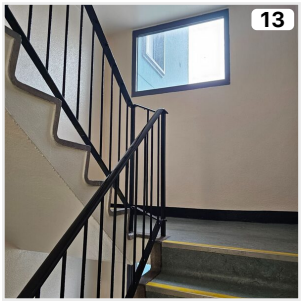
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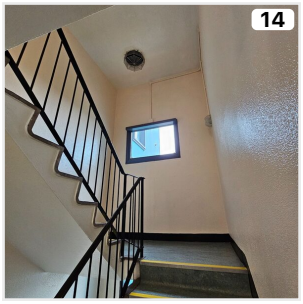

14


15
Dry riser


16


17
Odd
Even


18


19


20

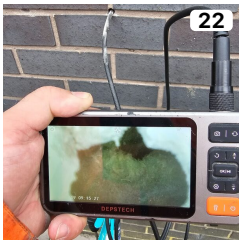
Fire Service Intervention

Event	Seconds	Minutes & Seconds
Initiation to fire detection	5 Seconds	5 Seconds
Actuation Of Fire Detector To Transmission Of Alarm	30 Seconds	30 Seconds
Processing By Central Monitoring Station	30 Seconds	30 Seconds
Receipt of call by fire service mobilising control	90 Seconds	1 Minute 30 Seconds
Transmission To Fire Station And Response	90 Seconds	1 Minute 30 Seconds
Travelling Time Of Fire Service	240 Seconds	4 Minutes
Arrival Protocol And Entry Preparation Time	240 Seconds	4 Minutes
Firefighting Travel In Firefighting Lift	120 Seconds	2 Minutes
Firefighter travel to operational bridgehead	300 Seconds	5 Minutes
Firefighter Travel Walking Up Two Flights Of Stairs To Fire Floor (75 Seconds)	75 Seconds	1 Minute 15 Seconds
Total Time	**1,220 Seconds**	**20 Minutes 20 Seconds**

Nearest Fire Station

West Bromwich Fire Station is 1.6 miles or 5 minutes in peak hours traffic

Wall Constructions

Photo	Wall Construction	Build-up
	**Wall Type 1 brickwork over mineral wool insulation (QH5TX6)**	• Surface Finish • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall) (Original brickwork)
	**Wall Type 2 - render over mineral wool insulation (G7G3IX)**	• Surface Finish (Render) • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall) (Original brickwork)
No Image	**Wall Type 3 - HPL panels (2NPQ7S)**	• Surface Finish (Suspected High Pressure Laminate (HPL) Panel) • Inner Leaf Support (Backing Wall) (Reinforced concrete)

Wall Construction: Wall Type 1 brickwork over mineral wool insulation

Construction Reference
QH5TX6

This wall construction was identified by wall inspections 5XHP4A, D2137J, and QCG6JN. The build-up, cavity barrier, and floor slab information is taken directly from inspection 5XHP4A. See the Inspections section of this report for full inspection details.

Construction	Effect	Risk
Wall Type 1 brickwork over mineral wool insulation (QH5TX6)	Positive	Low

Build-Up

3 Elements	Thickness/Depth	Material	Rating (BS EN13501)
Surface Finish	102mm		A1 - Non-Combustible
Brickwork sections have a full fill mineral wool insulation, the internal leaf forms part of the original external masonry wall			
Insulation	100mm	Mineral Wool Insulation	A1 - Non-Combustible
Inner Leaf Support (Backing Wall)	102mm	Original brickwork	A1 - Non-Combustible

Cavity Barriers

There is no external wall cavity

Floor Slab

Backing Wall Sits On The Floor Slab

Fire Performance

K.1 General

Materials with a calorific value (gross heat of combustion) of ≤3 MJ/kg	Positive

K.2 External Surfaces

Class A1/A2	Positive

K.3 Facings/Cladding Panels

Low HRR	Neutral

K.4 Panel Construction

No gaps between panels	Positive

K.5 Cavities

Facings into the cavity at least Class A2	Positive

K.6 Insulation

Mineral/glass insulation	Positive

K.7 Substrate

Masonry, >75 mm thick	Positive

PAS Standard Benchmark

L1 Benchmark

The Construction benchmark is outlined in section L1 of the PAS 9980 Guidance Document -

Masonry (brickwork, blockwork, reinforced concrete)

Loadbearing masonry, provided it is in good condition, can generally be regarded as providing a substrate which is both non-combustible and fire-resisting to a standard of at least 30 min (60 min if 100 mm thick or more). Non-loadbearing masonry might, or might not, have the same properties.

L3 Benchmark

Insulation materials previously classified as non-combustible/ limited combustibility (now Class A1 or Class A2)
- Stone wool
- Ceramic fibre
- Glass fibre
- Foamed glass
- Exfoliated vermiculite

Class A1 or Class A2 (non-combustible and limited combustibility) insulators pose negligible risk in external wall construction. Where such insulators fully fill wall construction then this might indicate that they are being relied upon as contributing to a period of fire resistance. However, if fire resistance is required or being relied upon as part of the assessment, it is important that these insulators fully fill the space they are in or are sufficiently rigid or otherwise mechanically retained/supported to provide a continuous barrier through the space (e.g. batts will retain their shape
whereas quilt can slump in a cavity).

L4 Benchmark

Cavity Barriers -

Cavity barriers are generally needed where cavities pass across compartment lines (so as to avoid the cavity providing a route for fire to circumvent the compartment line), to the extent needed to limit extensive cavities, and around openings including doors, windows and penetrations through cavity construction. Cavities do not, in and of
themselves, need their entire envelopes to be fire-resisting (e.g. the inner face of an external wall cavity can be formed of OSB, provided there are cavity barriers where the cavity passes across a compartment line and to the extent set out previously).

Services passing through cavity external wall construction need either to be surrounded by cavity barriers or to be provided with fire stopping where they pass through the inner leaf of the external wall construction, as would be the case for services passing through 30 min fire-resisting construction.

There are various types of cavity barrier that are commonly encountered in external wall construction.

Full fill cavity barriers can be made of any of the “deemed to satisfy” materials. Mechanical fixing of such cavity barriers is the most reliable approach, but they can be compression fitted if formed of a compressible material such as stone wool.

Open state cavity barriers are commonly used to solve the competing needs of fire separation and ventilation/ drainage. There are various forms of open state cavity barrier, ranging from stone wool batt with intumescent edge strips through to multifoil cavity barriers. These cavity barriers are generally only proven to perform in particular arrangements between solid substrates forming the faces of the cavity. Where the cavity barrier only needs to be fixed to one of the two faces and expands onto the other, only the face onto which it is fixed needs to be representative; the other need not be, particularly if it is the inside face of the rainscreen and therefore likely to fall away prior to failure of the cavity barrier. Where the cavity barrier requires fixing into both faces of the cavity (e.g. certain multifoil cavity barriers are designed to be set into mortar in cavities formed of two leaves of brickwork) then both faces and the method of fixing need to be representative of the certification of the cavity barrier.

Open state cavity barriers take time to close, so caution is necessary if they are combined with cavity linings that could spread particularly rapidly, such as EPS.

Proprietary cavity barriers might only be suitable for installation in a particular orientation:
• vertical cavity barriers might not be suitable for use as horizontal cavity barriers;
• horizontal cavity barriers (particularly those which are open state) are unlikely to be suitable for use as vertical cavity barriers, and also need to be installed both the right way up and the right way round.

L5 Benchmark

FRAMES -

The frames of windows and doors can, subject to the materials used in their construction, provide the function of cavity barriers or cavity closers around these openings. Typically, timber and steel frame windows offer the cavity barrier function whereas aluminium and uPVC do not. However, it is advisable to check uPVC frames with a magnet, as steel can be incorporated within the frame, particularly where the doors are required to provide a level of security.

L6 Benchmark

BALCONIES -

Balconies are defined in BS 8579. However, for the purpose of this PAS and the manner in which balconies impact external fire behaviour, balconies fall into one of three categories:
a) those which fall entirely within the curtilage of the building structure (i.e. they are built on the slab and appear inset into the building when observed from outside). They might be enclosed to an extent and might effectively be made fully enclosed (sometimes referred to as a "winter garden"). The extent of enclosure needs to be considered in light of whether, from a fire perspective, the space can be treated as part of the outside or whether it is in effect a compartment (i.e. subject to compartment fire behaviour);
b) those which project beyond the main building structure but do so on an extension of the floor slab. They provide an advantage in that their construction matches that of the compartment floor within the building, and can deflect fire/smoke plumes away from the building; and
c) those which project beyond the main building structure and are fixed to the outside face of the building. They can only be of lightweight construction; their construction needs to be assessed based upon the combustibility and fire resistance of any materials used.

Regardless of balcony type, the materials used to line the balconies (including soffits) need to be assessed in light of their likely contribution to external fire spread.
Storage of materials and other uses by residents also need to be taken into account. Any bulk storage can pose a significant hazard, as can the use of combustion appliances such as barbecues and heaters.

Aside from the above, means of escape external walkways (a form of balcony) are not within the scope of this PAS, as any risk associated with these would need to be considered as part of the overarching FRA.

L7 Benchmark

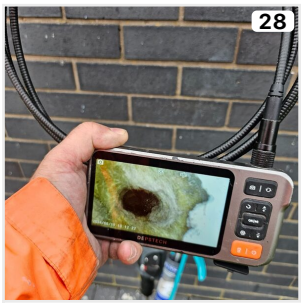
MASONRY (OUTER SINGLE SKIN ONLY)

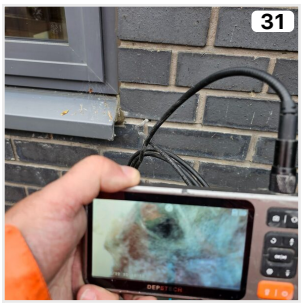
When assessing a building which appears to have masonry or concrete external wall construction, the following issues need to be taken into account.
a) Is the masonry/concrete loadbearing or simply providing a façade?
b) Is the masonry/concrete traditional (i.e. full bricks laid in courses using sand/cement mortar or concrete exceeding 75 mm thick); or
1) brick slip (tiles) fixed to a substrate; or
2) factory produced (typically panellized) brickwork?
If either item 1) or item 2) above, then treat as other form of cladding depending upon underlying construction (most likely rainscreen).
c) What is the underlying construction? For example:
1) second leaf of masonry/concrete forming a cavity;
2) timber frame;
3) steel structure and frame;
4) concrete structure and SFS;
5) concrete structure and concrete panels; or
6) insulated build-up (this is typically used where historic façades are retained over more modern construction, and can come in a variety of forms).

BR135 Benchmark

We have compared this external wall type to the cladding systems found on the BR135 database and we did find a cladding system with the configuration and components that would constitute an exact match to what our inspections found installed on the Property.

Photos





Wall Construction: Wall Type 2 - render over mineral wool insulation

Construction Reference
G7G3IX

This wall construction was identified by wall inspections JQHL7F, AZRTBZ, and PQLHNK. The build-up, cavity barrier, and floor slab information is taken directly from inspection JQHL7F. See the Inspections section of this report for full inspection details.

Construction	Effect	Risk
Wall Type 2 - render over mineral wool insulation (G7G3IX)	Positive	Low

Build-Up

3 Elements	Thickness/Depth	Material	Rating (BS EN13501)
Surface Finish	6mm	Render	A1 - Non-Combustible
Insulation	100mm	Mineral Wool Insulation	A1 - Non-Combustible
Inner Leaf Support (Backing Wall)		Original brickwork	A1 - Non-Combustible

Cavity Barriers

There is no external wall cavity

Floor Slab

Backing Wall Sits On The Floor Slab

Fire Performance

K.1 General

Materials with a calorific value (gross heat of combustion) of ≤3 MJ/kg	Positive

K.2 External Surfaces

Class A1/A2	Positive

K.3 Facings/Cladding Panels

Mechanically fixed	Positive

K.4 Panel Construction

No gaps between panels	Positive

K.5 Cavities

Facings into the cavity at least Class A2	Positive

K.6 Insulation

Mineral/glass insulation	Positive

K.7 Substrate

Masonry, >75 mm thick	Positive

PAS Standard Benchmark

L1 Benchmark

The Construction benchmark is outlined in section L1 of the PAS 9980 Guidance Document -

Masonry (brickwork, blockwork, reinforced concrete)

Loadbearing masonry, provided it is in good condition, can generally be regarded as providing a substrate which is both non-combustible and fire-resisting to a standard of at least 30 min (60 min if 100 mm thick or more). Non-loadbearing masonry might, or might not, have the same properties.

L3 Benchmark

Insulation materials previously classified as non-combustible/ limited combustibility (now Class A1 or Class A2)
- Stone wool
- Ceramic fibre
- Glass fibre
- Foamed glass
- Exfoliated vermiculite

Class A1 or Class A2 (non-combustible and limited combustibility) insulators pose negligible risk in external wall construction. Where such insulators fully fill wall construction then this might indicate that they are being relied upon as contributing to a period of fire resistance. However, if fire resistance is required or being relied upon as part of the assessment, it is important that these insulators fully fill the space they are in or are sufficiently rigid or otherwise mechanically retained/supported to provide a continuous barrier through the space (e.g. batts will retain their shape
whereas quilt can slump in a cavity).

L5 Benchmark

FRAMES -

The frames of windows and doors can, subject to the materials used in their construction, provide the function of cavity barriers or cavity closers around these openings. Typically, timber and steel frame windows offer the cavity barrier function whereas aluminium and uPVC do not. However, it is advisable to check uPVC frames with a magnet, as steel can be incorporated within the frame, particularly where the doors are required to provide a level of security.

L6 Benchmark

BALCONIES -

Balconies are defined in BS 8579. However, for the purpose of this PAS and the manner in which balconies impact external fire behaviour, balconies fall into one of three categories:
a) those which fall entirely within the curtilage of the building structure (i.e. they are built on the slab and appear inset into the building when observed from outside). They might be enclosed to an extent and might effectively be made fully enclosed (sometimes referred to as a “winter garden”). The extent of enclosure needs to be considered in light of whether, from a fire perspective, the space can be treated as part of the outside or whether it is in effect a compartment (i.e. subject to compartment fire behaviour);
b) those which project beyond the main building structure but do so on an extension of the floor slab. They provide an advantage in that their construction matches that of the compartment floor within the building, and can deflect fire/smoke plumes away from the building; and
c) those which project beyond the main building structure and are fixed to the outside face of the building. They can only be of lightweight construction; their construction needs to be assessed based upon the combustibility and fire resistance of any materials used.

Regardless of balcony type, the materials used to line the balconies (including soffits) need to be assessed in light of their likely contribution to external fire spread.
Storage of materials and other uses by residents also need to be taken into account. Any bulk storage can pose a significant hazard, as can the use of combustion appliances such as barbecues and heaters.

Aside from the above, means of escape external walkways (a form of balcony) are not within the scope of this PAS, as any risk associated with these would need to be considered as part of the overarching FRA.

L8 Benchmark

Rainscreen systems come in various forms, generally defined by the cold cavity arrangement they incorporate (see Table L.4):
• ventilated and drained; or
• pressure equalized.

Rainscreen systems are invariably supported on some form of framing or bracketing system. In the majority of cases, framing and bracketry transmit the load of the rainscreen to the back wall, and in turn to the building structure at each floor level.

However, consideration needs to be given to the possibility that the rainscreen load is transmitted down to the base of the system and only provides lateral restraint at floor levels. In this instance, the extent to which the frame might be exposed to fire needs to be taken into account, particularly if a material is used which offers no fire
resistance, such as aluminium.

Framing and bracketry are likely to interact with cavity barriers; where these cross over the cavity barriers then the detailing of the cavity barrier needs to be appropriate (including additional fire stopping as necessary) to achieve fire separation of cavities.

Table L.3 gives information on the various insulation materials that might be incorporated into a rainscreen system. It is unlikely that thermoplastic insulation will be acceptable in a rainscreen system, particularly if it is exposed in a cavity.

L10 Benchmark

ETICS -

These systems are sometimes referred to as rendered systems, as they feature an externally applied render coat as their weatherproof surface.

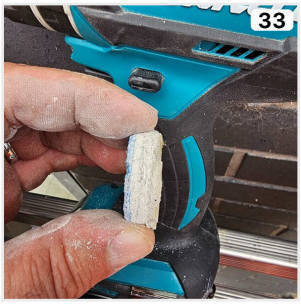
The level of risk that might potentially be posed by these systems is generally dictated by the type of insulation they incorporate.
• Mineral wool-based systems are likely to be low-risk.
• Rigid thermoset foam-based systems can be low-risk if fire barriers and cavity barriers (if a cavity exists behind the insulation) are properly provided. If there are gaps or other deficiencies then the level of risk might increase to medium or, in extreme cases, high.
• Thermoplastic foam-based systems might be low-risk if fire barriers and cavity barriers (if a cavity exists behind the insulation) are properly provided and where there is a significant thickness of cement-based render applied to the insulation. If there are gaps or other deficiencies, a non-cement-based (i.e. polymeric organic) render has been used or an insufficient thickness of cement-based render has been applied, then the level of risk is high.

In particular regard to thermoplastic systems, there are historic systems which are known to have had approximately 20 mm thick slivers of EPS insulation passing across the front of fire barriers, providing a route for fire to rapidly circumvent the barriers. It needs to be confirmed by inspection whether or not this situation exists; if it does exist, such a system is high risk irrespective of the type of render provided.

BR135 Benchmark

We have compared this external wall type to the cladding systems found on the BR135 database and we did find a cladding system with the configuration and components that would constitute an exact match to what our inspections found installed on the Property.

Photos




39


40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42


43

Wall Construction: Wall Type 3 - HPL panels

Construction Reference
2NPQ7S

This wall construction was identified by wall inspections R3BYZY and 5X2Y3N. The build-up, cavity barrier, and floor slab information is taken directly from inspection R3BYZY. See the Inspections section of this report for full inspection details.

Construction	Effect	Risk
Wall Type 3 - HPL panels (2NPQ7S)	Neutral	Medium

Build-Up

2 Elements	Thickness/Depth	Material	Rating (BS EN13501)
Surface Finish	9mm	Suspected High Pressure Laminate (HPL) Panel	B - Combustible
Inner Leaf Support (Backing Wall)	100mm	Reinforced concrete	

Cavity Barriers

None

Floor Slab

Backing Wall Sits On The Floor Slab

Fire Performance

K.1 General

Materials with a calorific value (gross heat of combustion) >3 MJ/kg and ≤35 MJ/kg	Neutral

K.2 External Surfaces

Class B	Neutral

K.3 Facings/Cladding Panels

Mechanically fixed	Positive

K.4 Panel Construction

Gaps between panels of 10 mm to 20 mm	Neutral

K.5 Cavities

No cavity barriers present, or cavity barriers ineffective through poor installation/ maintenance	Neutral

K.6 Insulation

No insulation	Neutral

K.7 Substrate

Masonry, >75 mm thick	Positive

PAS Standard Benchmark

L4 Benchmark

Ventilated versus unventilated cavities -

Cavities form a necessary part of many modern forms of wall construction, generally as they contribute to energy performance and to keeping moisture out of buildings.

Cavities can be entirely unventilated, drained but otherwise unventilated, slightly ventilated, or well ventilated. Cavities are often described by non-fire professionals by their position in relation to a building's insulation. "Warm" cavities are generally inboard of insulation whereas "cold" cavities are generally outboard of insulation. Cold cavities are more likely to be ventilated to some extent so as to mitigate against condensation, whereas warm cavities are more likely to be unventilated; however, the level of ventilation cannot be assumed.

The extent to which a cavity is ventilated, in combination with the fuel load presented by any materials in or facing into the cavity, dictates the extent to which a fire can become well developed in a cavity and contribute to fire spread. Cavity fires are generally most severe when the cavity involved is ventilated at its top and its base, as this provides an opportunity for air entrainment at low level, smoke escape at high level, and efficient combustion within the cavity.

L5 Benchmark

FRAMES -

The frames of windows and doors can, subject to the materials used in their construction, provide the function of cavity barriers or cavity closers around these openings. Typically, timber and steel frame windows offer the cavity barrier function whereas aluminium and uPVC do not. However, it is advisable to check uPVC frames with a magnet, as steel can be incorporated within the frame, particularly where the doors are required to provide a level of security.

L6 Benchmark

BALCONIES -

Balconies are defined in BS 8579. However, for the purpose of this PAS and the manner in which balconies impact external fire behaviour, balconies fall into one of three categories:
a) those which fall entirely within the curtilage of the building structure (i.e. they are built on the slab and appear inset into the building when observed from outside). They might be enclosed to an extent and might effectively be made fully enclosed (sometimes referred to as a “winter garden”). The extent of enclosure needs to be considered in light of whether, from a fire perspective, the space can be treated as part of the outside or whether it is in effect a compartment (i.e. subject to compartment fire behaviour);
b) those which project beyond the main building structure but do so on an extension of the floor slab. They provide an advantage in that their construction matches that of the compartment floor within the building, and can deflect fire/smoke plumes away from the building; and
c) those which project beyond the main building structure and are fixed to the outside face of the building. They can only be of lightweight construction; their construction needs to be assessed based upon the combustibility and fire resistance of any materials used.

Regardless of balcony type, the materials used to line the balconies (including soffits) need to be assessed in light of their likely contribution to external fire spread.
Storage of materials and other uses by residents also need to be taken into account. Any bulk storage can pose a significant hazard, as can the use of combustion appliances such as barbecues and heaters.

Aside from the above, means of escape external walkways (a form of balcony) are not within the scope of this PAS, as any risk associated with these would need to be considered as part of the overarching FRA.

L8 Benchmark

Rainscreen systems come in various forms, generally defined by the cold cavity arrangement they incorporate (see Table L.4):
• ventilated and drained; or
• pressure equalized.

Rainscreen systems are invariably supported on some form of framing or bracketing system. In the majority of cases, framing and bracketry transmit the load of the rainscreen to the back wall, and in turn to the building structure at each floor level.

However, consideration needs to be given to the possibility that the rainscreen load is transmitted down to the base of the system and only provides lateral restraint at floor levels. In this instance, the extent to which the frame might be exposed to fire needs to be taken into account, particularly if a material is used which offers no fire
resistance, such as aluminium.

Framing and bracketry are likely to interact with cavity barriers; where these cross over the cavity barriers then the detailing of the cavity barrier needs to be appropriate (including additional fire stopping as necessary) to achieve fire separation of cavities.

Table L.3 gives information on the various insulation materials that might be incorporated into a rainscreen system. It is unlikely that thermoplastic insulation will be acceptable in a rainscreen system, particularly if it is exposed in a cavity.

L9 Benchmark

HPL -

HPLs are most commonly formed of a mixture of cellulose (wood pulp, recycled paper or similar) and combustible polymeric resin, though external wall assessors need to be aware that any combination of materials formed in a press can be termed a “high pressure laminate” and might be difficult to differentiate visually.

HPLs formed of cellulose and resin typically behave in a charring manner analogous to timber, with similar flame spread, energy release and mechanical behaviour (charring until breaking apart). With treatment for enhanced fire performance (usually by additive of chemical fire retardant), these behaviours can potentially be improved, but need to be known on a product-specific basis before they can be relied upon as providing better performance.

BR135 Benchmark

We have compared this external wall type to the cladding systems found on the BR135 database and we did not find a cladding system with the configuration and components that would constitute an exact match to what our inspections found on the Property.

Façade Configuration: AWD1BW

Items in Façade

6 Items	Effect	Risk
Wall Construction Wall Type 1 brickwork over mineral wool insulation (QH5TX6)	Positive	Low
Attachment Cantilever Balcony (2JDEMW)	Neutral	Medium
External Door Single Leaf Entrance Doors (BG6AT2)	Positive	Low
External Door Single Leaf Entrance Doors (R538KM)	Positive	Low
External Window Top, Mid, Side Hung Casements (JDGK1L)	Positive	Low
External Window Top, Mid, Side Hung Casements (FZI3N3)		

Façade Configuration Risk Factors

N.1 Building Height/Cladding Height

<11 m	Neutral

N.2 Height of Base of Cladding (Above Ground)

<2 m NOTE At this height, the likelihood of a fire originating externally (e.g. involving a parked vehicle or waste skip started either accidently or deliberately) igniting the cladding is highly likely.	Neutral

N.3 Extent of Cladding

No scope for a cladding fire to breach compartment wall and floor boundaries	Positive

N.4 Cavities & Openings

Cavity limited in extent and running horizontally only

Positive

N.7 Overhangs & Projections

Projecting floor slabs that divide combustible cladding such as to divert flames away from the walls and protect the cladding above or slow the rate of fire spread

Positive

N.8 Proximity to Windows and Other Openings to the Accommodation

Horizontally adjacent to windows and openings, but not vertically in line with such openings, such that fire and smoke spread into the buildings, causing secondary fires, as a result of direct flame impingement, is possible,
but only under adverse wind conditions

Neutral

N.9 Presence of vents or other openings for services in the Façade

Where vents pass through a cavity, either:
• the cavity does not include combustible materials; or
• the cavity is faced on either side by brick or concrete at least 75 mm thick and any combustible insulation in the cavity is not thermoplastic

Positive

Risk Factor Analysis

Conclusion: In the event of a fire, fire spread is likely to be at a lower rate within expectations for a building of this height, but nevertheless, tolerable rate, given the circumstances at the building in question; and/or

a) fire spread is unlikely to give rise to widespread secondary fires resulting in occupants being significantly harmed or prevented from escaping.
b) fire is unlikely to spread in such a way that the communal means of escape will be compromised before occupants can safely use them to escape.

Low

Façade Configuration: 2B9A2V

Items in Façade

6 Items	Effect	Risk
Wall Construction Wall Type 2 - render over mineral wool insulation (G7G3IX)	Positive	Low
Attachment Cantilever Balcony (2JDEMW)	Neutral	Medium
External Door Single Leaf Entrance Doors (BG6AT2)	Positive	Low
External Door Single Leaf Entrance Doors (R538KM)	Positive	Low
External Window Top, Mid, Side Hung Casements (JDGK1L)	Positive	Low
External Window Top, Mid, Side Hung Casements (FZI3N3)		

Façade Configuration Risk Factors

N.1 Building Height/Cladding Height

18 m to 30 m — Neutral

N.2 Height of Base of Cladding (Above Ground)

>5 m
NOTE At this height, the likelihood of a fire originating externally (e.g. involving a parked vehicle or waste skip and started either accidently or deliberately) igniting the cladding is highly unlikely. — Positive

N.3 Extent of Cladding

No scope for a cladding fire to breach compartment wall and floor boundaries — Positive

N.4 Cavities & Openings

No cavity

Positive

N.8 Proximity to Windows and Other Openings to the Accommodation

Horizontally adjacent to windows and openings, but not vertically in line with such openings, such that fire and smoke spread into the buildings, causing secondary fires, as a result of direct flame impingement, is possible,
but only under adverse wind conditions

Neutral

N.9 Presence of vents or other openings for services in the Façade

Where vents pass through a cavity, either:
• the cavity does not include combustible materials; or
• the cavity is faced on either side by brick or concrete at least 75 mm thick and any combustible insulation in the cavity is not thermoplastic

Positive

N10. Proximity of Combustible Elements of a Façade to Escape Route Windows & Other Openings

Remote from windows and openings, such that fire and smoke spread into the escape routes to give rise to untenable conditions is not possible

Positive

Risk Factor Analysis

Conclusion: In the event of a fire, fire spread is likely to be at a lower rate within expectations for a building of this height, but nevertheless, tolerable rate, given the circumstances at the building in question; and/or

a) fire spread is unlikely to give rise to widespread secondary fires resulting in occupants being significantly harmed or prevented from escaping.
b) fire is unlikely to spread in such a way that the communal means of escape will be compromised before occupants can safely use them to escape.

Low

Façade Configuration: YXVA68

Items in Façade

6 Items	Effect	Risk
Wall Construction Wall Type 3 - HPL panels (2NPQ7S)	Neutral	Medium
Attachment Cantilever Balcony (2JDEMW)	Neutral	Medium
External Door Single Leaf Entrance Doors (BG6AT2)	Positive	Low
External Door Single Leaf Entrance Doors (R538KM)	Positive	Low
External Window Top, Mid, Side Hung Casements (JDGK1L)	Positive	Low
External Window Top, Mid, Side Hung Casements (FZI3N3)		

Façade Configuration Risk Factors

N.1 Building Height/Cladding Height

18 m to 30 m — Negative

N.2 Height of Base of Cladding (Above Ground)

>5 m
NOTE At this height, the likelihood of a fire originating externally (e.g. involving a parked vehicle or waste skip and started either accidently or deliberately) igniting the cladding is highly unlikely. — Negative

N.3 Extent of Cladding

No scope for a cladding fire to breach compartment wall and floor boundaries — Neutral

N.4 Cavities & Openings

Continuous vertically running cavity without cavity barriers or fire stops

Negative

N.8 Proximity to Windows and Other Openings to the Accommodation

Horizontally adjacent to windows and openings, but not vertically in line with such openings, such that fire and smoke spread into the buildings, causing secondary fires, as a result of direct flame impingement, is possible,
but only under adverse wind conditions

Negative

N10. Proximity of Combustible Elements of a Façade to Escape Route Windows & Other Openings

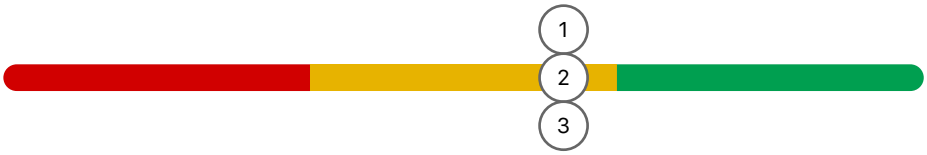
Adjacent to windows and openings onto escape routes, but the same fire could not spread to affect more than one escape route

Neutral

Risk Factor Analysis

Conclusion: In the event of a fire, fire spread is likely to be at a lower rate within expectations for a building of this height, but nevertheless, tolerable rate, given the circumstances at the building in question; and/or

a) fire spread is unlikely to give rise to widespread secondary fires resulting in occupants being significantly harmed or prevented from escaping.
b) fire is unlikely to spread in such a way that the communal means of escape will be compromised before occupants can safely use them to escape.



Medium

APPENDIX

Asset Information

Client Name

Sandwell Metropolitan Borough Council

Client Address

Sandwell Council House
Freeth Street PO Box 2374
Oldbury
B69 3DE

Responsible Person

Sandwell Metropolitan Borough Council

Safety Assistance

Not Required

Contact Details

As provided by client

Fire Alarm System

Fire detection in flats is limited to hard-wired or battery-operated smoke alarms.
The detection system varies between LD1 and LD2 standards in sampled flats:
LD1 (highest standard) – Smoke detection in all rooms except wet rooms.
LD2 – Smoke detectors in hallways and living rooms, with heat detectors in kitchens.
No fire alarm system is installed in communal areas.
Automatic Opening Vent (AOV) detection:
Smoke detectors are installed in lobbies, stairwell landings, and the area between the lobby/stairwell & chute room doors on floors 1 to 16.
These detectors are solely for activating the AOV system and do not provide a general fire alarm function.

Emergency Lighting

Installed in communal parts

Emergency Lighting

Emergency lighting appears to conform to the requirements of BS5266-1 design standard. The system appears to provide adequate coverage and be in good working order (indicator lights active on luminaires). Luminaires are correctly sited and appear to provide adequate lighting.

Portable Fire Fighting Equipment

Portable Fire Fighting Equipment installed within staff only / Restricted areas of the building

Portable Fire Fighting Equipment

Extinguisher equipment is installed within staff only / Restricted access areas of the building.

Smoke Control

Natural smoke control

Smoke Control

The stairs and/or lobbies are provided with adequate permanent or manually operated ventilation openings for the control of smoke. Manual openable windows within the stairwell and the stairs and lobbies are provided with an automatic smoke ventilation system

Suppression Systems

Partial sprinkler system installed (Detailed in Description)

Suppression System

Sprinkler (deluge) system detection:
The bin store has a deluge system that is activated by smoke detection.
The control panel for this system is located in the ground floor electrical service cupboard.

Fire Fighting Facilities

Dry Riser

Fire Fighting Facilities

Dry riser outlets were located on each floor within the firefighting lobby area, ensuring accessible water supply for firefighting operations. This placement allows for efficient connection of firefighting hoses, providing vital water access to emergency services during fire incidents across all floor levels.

Access for fire-fighting vehicles

Adequate access for firefighting vehicles
NOTE This is where access is possible in line with benchmark guidance on access for firefighting vehicles from Approved Document B, taking into account the size of the building (floor area), height of the building and whether fire mains are present in the building.

Fire Hydrant Location/ Water Supply

Directly outside the main/front entrance

Housekeeping

Good standard. Means of escape clear. Refuse stored appropriately

Secure Information Boxes

Secure information box (SIB) installed

Secure Information Boxes

A proprietary steel SIB is fitted within the main entrance lobby

Signage

Appropriate signage installed throughout premises

Signage

Directional. Wayfinding. Fire Action Notices. No Smoking. Do Not Use Lift in Case of Fire. Final Exit. Fire Door.

Property Type

Apartment Block, Residential Purpose-built

Building Era / Age

Known Build Date

Known Build Date

1967

Building Height

Is approximately 45 metres from lowest point at ground to the upper most enclosed finished floor slab

Approx Floor Area Per Floor

The approximate footprint is 600m2

Number of Storeys (Ground and above)

There are 17 floors including the ground floor

Number of Basement Levels

None

Number of Flats

67

Flat Types

Single Storey

Structural Wall Material

Traditional build with concrete floor slab

Structural Floor Material

Reinforced Concrete

Structural Stairs Material

The structure comprises of reinforced concrete frame with reinforced staircores, lift core, floor slabs and foundations. The external walls are formed from a hand laid brick outer leaf and an internal leaf of concrete blockwork with projecting balconies on all occupied floors.

Construction (Details)

Traditional concrete frame and brick construction which has had refurbishment works including UPVC windows, insulation and render facade over the existing facade.

Exterior Cladding

FRAEW Completed on Exterior Cladding

Exterior Cladding (Details)

Improvement works were carried out 2010 planning reference DC/10/52440 which comprised of external insulated cladding that was found to be a mineral wool based external wall insulation with cement based render finish; replacement widows were found to be softwood timber with metal capping; the new front entrance porch was found to be polyester powder coated metal.

Replacement balcony panels were initially considered to be external prefinished MDF, however as no manufacturing origin details were found and on further evaluation of the product, we believe the panels are a high pressure laminate. According to planning submission details, it appears that Trespa panels were specified at the time and we would suggest that as built historic records are located to confirm or a fire classification test is considered.

Electronic Entrance System

Yes

Carpark

External/Outdoor Carpark

Employees

None

Residents

Yes

Approx number of Residents

134

Residents (Extended)

Assumed to be two residents per flat (Exact numbers not known)

People With Reduced Mobility

Other

People with Reduced Mobility (Extended)

General Needs - No information however, General Needs premises so occupants are typical of the general population

Lone Workers

None

Young Persons Employed in the Premises

None

Escapes & Exits

There are sufficient fire exits from the premises of suitable width and within acceptable travel distances. Emergency exits open outwards in escape direction.

Number Of Internal Escape Stairs

The building is provided with a single escape stair

Number Of Final Exits

The building is provided with two individual escape exits

External Means Of Escape

None Present

Types Of Lifts Installed

Passenger + Fireman's Control

Evacuation Chairs Installed

No

Refuge Points Present

No

Stairwells Protected / Lobbied

Yes

Flat Doors Open Onto Stairs

No

Current Evacuation Strategy

Stay Put

Current Stay Put Strategy Description

The current evacuation strategy is Stay Put as denoted by the fire action notices displayed in the common area.

Current Evacuation Strategy for the property considered appropriate?

Yes

Description

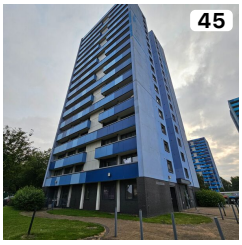
The premises is purpose-built with an adequate standard of compartmentation. The current Stay Put evacuation strategy is considered appropriate.

What is the recommended evacuation strategy for the property?

Stay Put

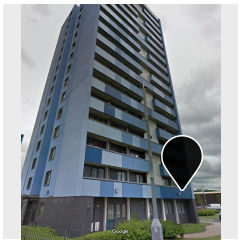
Aerial Perspective: Aerial Perspective: Showing Aerial view of Mountford House and the surrounding area

Elevations

Photo	Name	No. of Storeys
	South Elevation	17 Storeys
	West Elevation	17 Storeys
	North Elevation	17 Storeys
	East Elevation	17 Storeys

Inspections

Elevation Location	Inspection	Elements
	**Inspection: 5XHP4A** Survey locations as tagged Accessible wall	• Surface Finish • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall) (Original brickwork)
	Inspection: MEZCAW	• Surface Finish
	**Inspection: JQHL7F** Survey locations as tagged Accessible wall	• Surface Finish (Render) • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall) (Original brickwork)
	Inspection: 12SC5E	• Surface Finish
	**Inspection: R3BYZY** Survey locations as tagged Accessible wall	• Surface Finish (Suspected High Pressure Laminate (HPL) Panel) • Inner Leaf Support (Backing Wall) (Reinforced concrete)
	**Inspection: QCG6JN** Survey locations as tagged	• Surface Finish • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall) (Original brickwork)
	**Inspection: D2137J** Survey locations as tagged	• Surface Finish • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall) (Original brickwork)

Elevation Location	Inspection	Elements
	**Inspection: AZRTBZ** Survey locations as tagged	• Surface Finish (Render) • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall) (Original brickwork)
	**Inspection: PQLHNK** Survey locations as tagged	• Surface Finish (Render) • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall) (Original brickwork)
	**Inspection: 5X2Y3N** Survey locations as tagged Accessible wall	• Surface Finish (Suspected High Pressure Laminate (HPL) Panel) • Inner Leaf Support (Backing Wall) (Reinforced concrete)

Inspection: 5XHP4A

Elevation • Location
Survey locations as tagged • Accessible wall

Name/Summary

Wall Type 1 brickwork over mineral wool insulation

Description

No external cavity. The internal void is filled with insulation

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	102mm			A1 - Non-Combustible
Brickwork sections have a full fill mineral wool insulation, the internal leaf forms part of the original external masonry wall				
Insulation	100mm	Mineral Wool Insulation		A1 - Non-Combustible
Inner Leaf Support (Backing Wall)	102mm	Original brickwork		A1 - Non-Combustible

Cavity Barriers

There is no external wall cavity

Floor Slab

Backing Wall Sits On The Floor Slab

Inspection Photos

Inspection: MEZCAW

Name/Summary

Wall Type 1 - hand laid class 2 brickwork with residual cavity of 80mm

Description

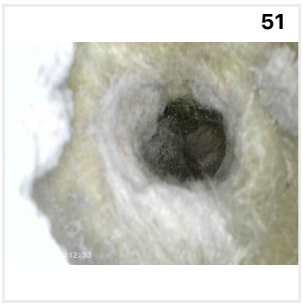
Brickwork sections have a full fill mineral wool insulation, the internal leaf forms part of the original external masonry wall

Build-Up

1 Element	Thickness/Depth	Photo Ref.	Rating (BS EN13501)
Surface Finish	102mm		A1 - Non-Combustible

Brickwork sections have a full fill mineral wool insulation, the internal leaf forms part of the original external masonry
wall

Inspection Photos



Inspection: JQHL7F

Elevation • Location
Survey locations as tagged • Accessible wall

Name/Summary

Wall Type 2 - render over mineral wool insulation

Description

No external cavity. The internal void is filled with insulation

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	6mm	Render		A1 - Non-Combustible
Insulation	100mm	Mineral Wool Insulation		A1 - Non-Combustible
Inner Leaf Support (Backing Wall)		Original brickwork		A1 - Non-Combustible

Cavity Barriers

There is no external wall cavity

Floor Slab

Backing Wall Sits On The Floor Slab

Inspection Photos

Inspection: 12SC5E

Name/Summary

Wall Type 2 - mineral wool substrate EWI with cement based render system of between 4-8mm

Build-Up

1 Element	Thickness/Depth	Photo Ref.	Rating (BS EN13501)
Surface Finish	100mm		A1 - Non-Combustible

The EWI system is considered to be non-combustible

Inspection Photos

Inspection: R3BYZY

Elevation • Location
Survey locations as tagged • Accessible wall

Name/Summary

Wall Type 3 - HPL panels

Build-Up

2 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	9mm	Suspected High Pressure Laminate (HPL) Panel		B - Combustible
Inner Leaf Support (Backing Wall)	100mm	Reinforced concrete		

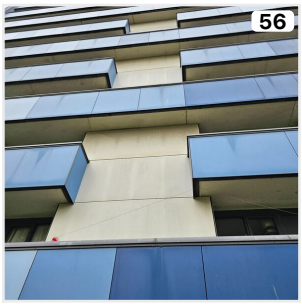
Cavity Barriers

None

Floor Slab

Backing Wall Sits On The Floor Slab

Inspection Photos



Inspection: QCG6JN

Elevation
Survey locations as tagged

Name/Summary

Wall Type 1 brickwork over mineral wool insulation

Description

No external cavity. The internal void is filled with insulation

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	102mm			A1 - Non-Combustible
Brickwork sections have a full fill mineral wool insulation, the internal leaf forms part of the original external masonry wall				
Insulation	100mm	Mineral Wool Insulation		A1 - Non-Combustible
Inner Leaf Support (Backing Wall)	102mm	Original brickwork		A1 - Non-Combustible

Cavity Barriers

There is no external wall cavity

Floor Slab

Backing Wall Sits On The Floor Slab

Inspection: D2137J

Elevation
Survey locations as tagged

Name/Summary

Wall Type 1 brickwork over mineral wool insulation

Description

No external cavity. The internal void is filled with insulation

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	102mm			A1 - Non-Combustible
Brickwork sections have a full fill mineral wool insulation, the internal leaf forms part of the original external masonry wall				
Insulation	100mm	Mineral Wool Insulation		A1 - Non-Combustible
Inner Leaf Support (Backing Wall)	102mm	Original brickwork		A1 - Non-Combustible

Cavity Barriers

There is no external wall cavity

Floor Slab

Backing Wall Sits On The Floor Slab

Inspection: AZRTBZ

Elevation
Survey locations as tagged

Name/Summary

Wall Type 2 - render over mineral wool insulation

Description

No external cavity. The internal void is filled with insulation

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	6mm	Render		A1 - Non-Combustible
Insulation	100mm	Mineral Wool Insulation		A1 - Non-Combustible
Inner Leaf Support (Backing Wall)		Original brickwork		A1 - Non-Combustible

Cavity Barriers

There is no external wall cavity

Floor Slab

Backing Wall Sits On The Floor Slab

Inspection: PQLHNK

Elevation
Survey locations as tagged

Name/Summary

Wall Type 2 - render over mineral wool insulation

Description

No external cavity. The internal void is filled with insulation

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	6mm	Render		A1 - Non-Combustible
Insulation	100mm	Mineral Wool Insulation		A1 - Non-Combustible
Inner Leaf Support (Backing Wall)		Original brickwork		A1 - Non-Combustible

Cavity Barriers

There is no external wall cavity

Floor Slab

Backing Wall Sits On The Floor Slab

Inspection: 5X2Y3N

Elevation • Location
Survey locations as tagged • Accessible wall

Name/Summary

Wall Type 3 - HPL panels

Build-Up

2 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	9mm	Suspected High Pressure Laminate (HPL) Panel		B - Combustible
Inner Leaf Support (Backing Wall)	100mm	Reinforced concrete		

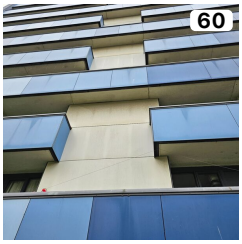
Cavity Barriers

None

Floor Slab

Backing Wall Sits On The Floor Slab

Attachments & Balconies

Photo	Attachment
	**Cantilever Balcony (2JDEMW)** Configuration: Stacked

Attachment: Cantilever Balcony

Attachment Reference
2JDEMW

Details

Configuration

Stacked

Framework/Structure

The balcony forms part of the corresponding reinforced concrete floor slab

Decking & Supports

Timber decking on a concrete base

Soffit

Concrete

L6 Benchmark

Balconies -

Balconies are defined in BS 8579. However, for the purpose of this PAS and the manner in which balconies impact external fire behaviour, balconies fall into one of three categories:
a) Those which fall entirely within the curtilage of the building structure (i.e. they are built on the slab and appear inset into the building when observed from outside). They might be enclosed to an extent and might effectively be made fully enclosed (sometimes referred to as a "winter garden"). The extent of enclosure needs to be considered in light of whether, from a fire perspective, the space can be treated as part of the outside or whether it is in effect a compartment (i.e. subject to compartment fire behaviour);
b) Those which project beyond the main building structure but do so on an extension of the floor slab. They provide an advantage in that their construction matches that of the compartment floor within the building, and can deflect fire/smoke plumes away from the building; and
c) Those which project beyond the main building structure and are fixed to the outside face of the building. They can only be of lightweight construction; their construction needs to be assessed based upon the combustibility and fire resistance of any materials used.

Regardless of balcony type, the materials used to line the balconies (including soffits) need to be assessed in light of their likely contribution to external fire spread.

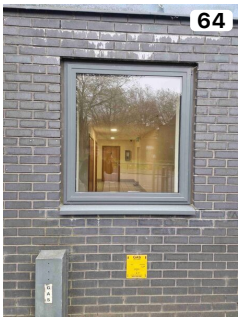
Storage of materials and other uses by residents also need to be taken into account.

Any bulk storage can pose a significant hazard, as can the use of combustion appliances such as barbecues and heaters.

Aside from the above, means of escape external walkways (a form of balcony) are not within the scope of this PAS, as any risk associated with these would need to be considered as part of the overarching FRA.

Photos

External Windows

Photo	External Window
	Top, Mid, Side Hung Casements (JDGK1L)
	Top, Mid, Side Hung Casements (FZI3N3)

External Window: Top, Mid, Side Hung Casements

External Window Reference
JDGK1L

Details

Surface Material

Aluminium

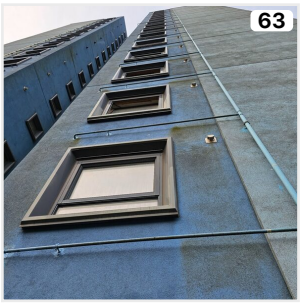
Frame Material

Timber

Details

Aluminium windows would not add to or support the growth of a fire

Photos



External Window: Top, Mid, Side Hung Casements

External Window Reference
FZI3N3

Details

Surface Material

Aluminium

Frame Material

Timber

Infill / Panel Material

Toughened Glass

Details

Kite marking indicates EN 12150

Photos

External Doors

Photo	External Door
	Single Leaf Entrance Doors (BG6AT2)
	Single Leaf Entrance Doors (R538KM)

External Door: Single Leaf Entrance Doors

External Door Reference
BG6AT2

Details

Surface Material

Aluminium

Frame Material

Aluminium

Infill / Panel Material

Aluminium

Details

Aluminium doors would not add to or support the growth of a fire

Photos

External Door: Single Leaf Entrance Doors

External Door Reference
R538KM

Details

Surface Material

Aluminium

Frame Material

Aluminium

Infill / Panel Material

Aluminium

Details

Aluminium doors would not add to or support the growth of a fire

Photos

Plan: Survey locations as tagged

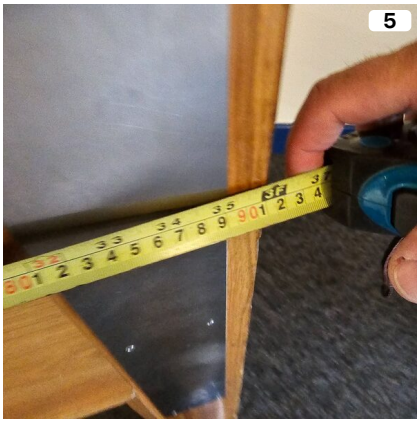
Plan: Survey locations as tagged

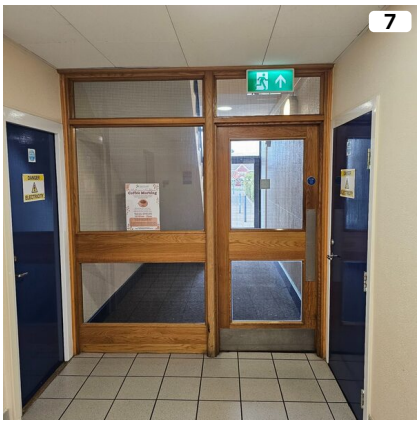
Plan: Survey locations as tagged

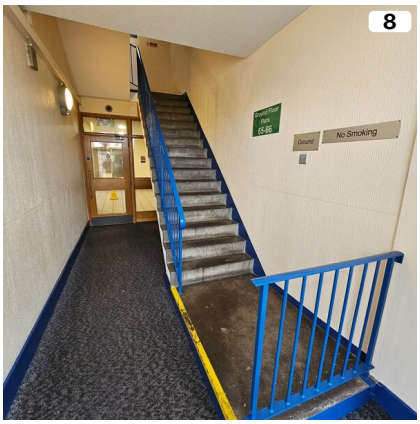
Plan: Survey locations as tagged

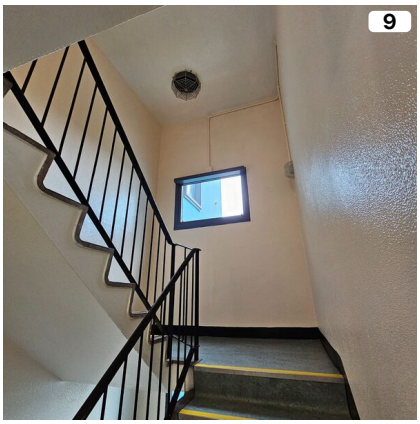
Plan: Survey locations as tagged

Photos

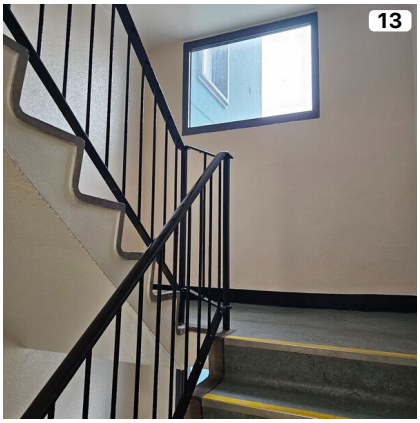


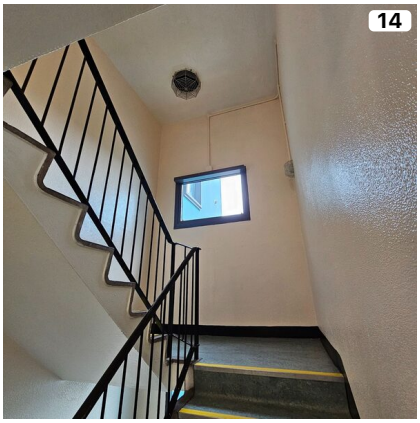




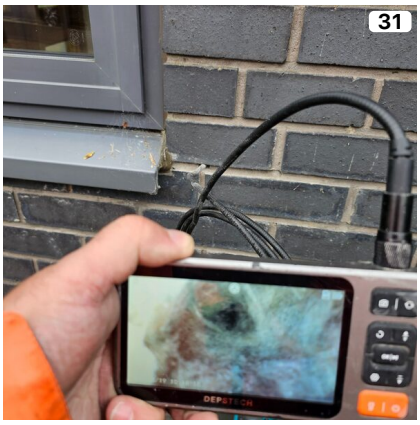


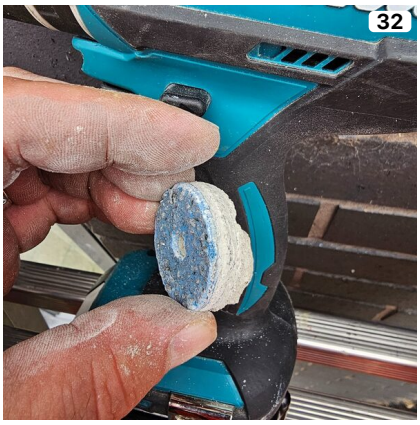
Photos Continued...

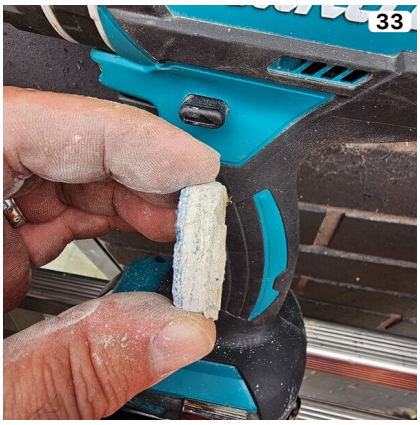




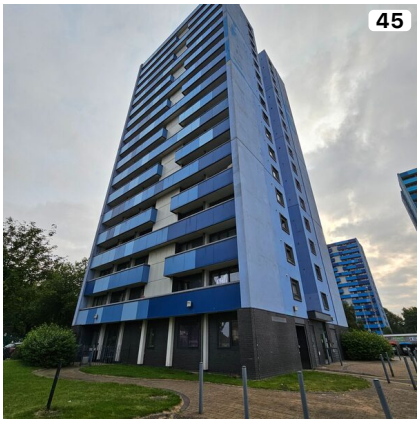
Photos Continued...



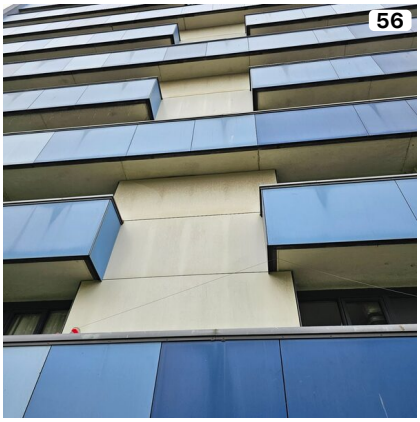




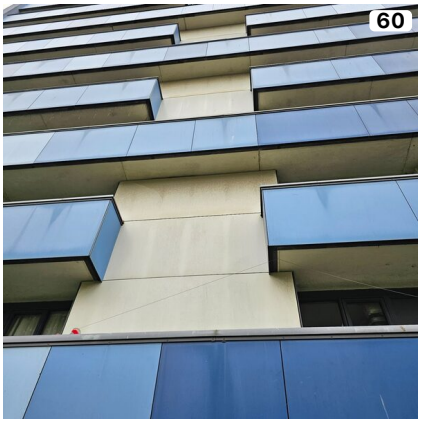
Photos Continued...

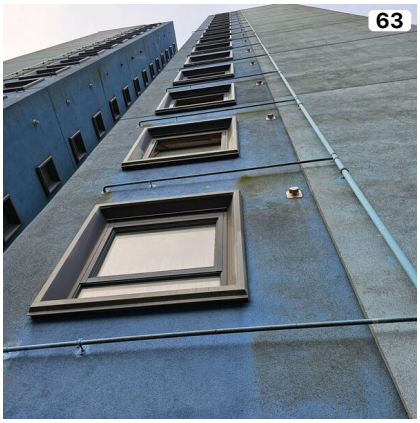


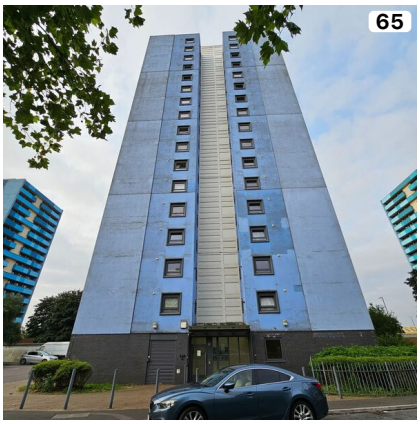
Photos Continued...



Photos Continued...







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BUILDING COMPLIANCE

0345 646 1566 | info@firntec.com | www.firntec.com