



FIRNTEC
BUILDING COMPLIANCE

Unit 4a, Darklake View,
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FIRE RISK APPRAISAL EXTERNAL WALLS

ELMCROFT

Elmcroft
Windmill Lane
Smethwick
West Midlands
B66 3JN

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Summary

Fire Risk Appraisal External Walls

Assessment and Certificate Reference

RB-5WDZMH

Assessed On, By

23/11/2024, 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

23/11/2029

Assessed Property

Property Name

Elmcroft

Property Reference

RB-JMQZEJ

Address

Elmcroft

Windmill Lane

Smethwick

West Midlands

B66 3JN

Assessing Organisation

Firntec Ltd

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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 through 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

9 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.

6 Items	Effect	Risk
Wall Construction Wall Type 1 - Stonewall over mineral wool (Y7EPLC)	Positive	Low
Wall Construction Wall Type 2 - render over mineral wool (D9PJX4)	Positive	Low
Wall Construction Wall Type 3 - brick slips over XPS insulation (6JP7G9)	Neutral	Medium
Penetration Ventilation (BF6B2Q)		
External Window Top, Mid, Side Hung Casements (V7VTYJ)	Positive	Low
External Door Single Leaf Entrance Doors (SWA23R)	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 **EVTIJS** which includes wall construction **Y7EPLC**.

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 **PZ9X4Q** which includes wall construction **D9PJX4**.

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 **5SDU5K** which includes wall construction **6JP7G9**.

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.



Overall Building Risk Rating



Our professional opinion is that overall this Building represents a Positive 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

Positive

Photo Ref. 1

F.3 Escape Route Design

Single staircase, with lobby approach

Photo Ref. 2, 3, 4, 5

Negative

F.4 Compartmentation

Adequate compartmentation in line with the expectations for a block of flats as Sandwell have implemented an ongoing regime of compartmentation and fire stopping checks/repairs across all multi occupancy buildings

Positive

F.5 Smoke Control

Automatic Opening Vents (AOVs) installed:
Located at stairwell head on the 14th floor.
Control panels at ground floor lobby and 14th floor staircase.
Biannual servicing (April & October) in accordance with BS 7346.

Positive

F.6 Fire Alarm & Detection

Within Flats: Smoke alarms are installed to LD1 and LD2 standards.

LD1: Smoke detectors in all rooms except wet rooms.

LD2: Smoke detectors in all-risk rooms (Living Room, Kitchen, Hallway).

Sampled flats indicate a mix of LD1 and LD2 installations.

Any void properties are being upgraded to an LD1 system.

Heat detectors in kitchens are recommended as a future improvement.

No automatic fire detection in communal areas. There is a part 1 system that covers the lift shaft.

Positive

F.7 Fire Suppression

Deluge System installed in the bin store

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.

Positive

F.9 Rising Mains

Dry riser inlet cabinet: Located in the entrance lobby.

Secured with a budget lock.

Dry riser outlets:

Exposed outlets located on communal lobbies on each floor.

Secured with cable ties, checked regularly by caretakers.

Positive

F.10 Lifts Used By Firefighters

Number of lifts: Two lift cars serve alternate floors.

Lift capacity: 8 persons or 630kg.

Lift motor room location: Roof void.

Access via metal stairs from the 14th floor.

Entry through a full-height door (secured with a suited 54 lock). Absence of firefighting lift in buildings above 18 m

Neutral

Photos



Fire Service Intervention

Event	Seconds	Minutes & Seconds
Initiation to fire detection	30 Seconds	30 Seconds
Actuation Of Fire Detector To Transmission Of Alarm	30 Seconds	30 Seconds
Processing By Central Monitoring Station	90 Seconds	1 Minute 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	90 Seconds	1 Minute 30 Seconds
Arrival Protocol And Entry Preparation Time	420 Seconds	7 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	1,335 Seconds	22 Minutes 15 Seconds

Nearest Fire Station

The nearest fire and rescue service is found at Stony Lane Smethwick B67 7QW and approximately 1.5 miles away or 7 minutes in peak hours traffic.

Wall Constructions

Wall Construction	Build-up
Wall Type 1 - Stonewall over mineral wool (Y7EPLC)	• Surface Finish (Stonewall rainscreen panels) • Cavity • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall) (Original brickwork)
Wall Type 2 - render over mineral wool (D9PJX4)	• Surface Finish (Render) • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall) (Original brickwork)
Wall Type 3 - brick slips over XPS insulation (6JP7G9)	• Surface Finish (Brick Slip / Brick Tile) • Insulation (XPS Insulation) • Inner Leaf Support (Backing Wall) (Original brickwork)

Wall Construction: Wall Type 1 - Stonewall over mineral wool

Construction Reference
Y7EPLC

This wall construction was identified by wall inspections DSTG8L, UWC6JJ, and NM69MK. The build-up, cavity barrier, and floor slab information is taken directly from inspection DSTG8L. See the Inspections section of this report for full inspection details.

Construction	Effect	Risk
Wall Type 1 - Stonewall over mineral wool (Y7EPLC)	Positive	Low

Build-Up

4 Elements	Thickness/Depth	Material	Rating (BS EN13501)
Surface Finish	10mm	Stonewall rainscreen panels Material Brand: Rockwool	A1 - Non-Combustible
Cavity	50mm		
Insulation		Mineral Wool Insulation	A1 - Non-Combustible
Inner Leaf Support (Backing Wall)	102mm	Original brickwork	A1 - Non-Combustible

Cavity Barriers

1 Cavity Barrier	Material
Horizontal Cavity Barrier	Open State Cavity Barrier

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

Neutral

K.4 Panel Construction

Limited size of gaps between panels (Typically < 10 mm)

Neutral

K.5 Cavities

Cavity barriers present with no more than minor workmanship defects

Positive

K.6 Insulation

Class A1/A2

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.

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.

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.

Wall Construction: Wall Type 2 - render over mineral wool

Construction Reference
D9PJX4

This wall construction was identified by wall inspections 6Q4YKN, RXSTEY, and E21V2A. The build-up, cavity barrier, and floor slab information is taken directly from inspection 6Q4YKN. See the Inspections section of this report for full inspection details.

Construction	Effect	Risk
Wall Type 2 - render over mineral wool (D9PJX4)	Positive	Low

Build-Up

3 Elements	Thickness/Depth	Material	Rating (BS EN13501)
Surface Finish	6mm	Render	A1 - Non-Combustible
Insulation	100mm	Mineral Wool Insulation Material Brand: Rockwool	A1 - Non-Combustible
Inner Leaf Support (Backing Wall)	102mm	Original brickwork	A1 - Non-Combustible

Cavity Barriers

No external 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

Neutral

K.4 Panel Construction

No gaps between panels

Positive

K.5 Cavities

Facings into the cavity at least Class A2

Neutral

K.6 Insulation

Class A1/A2

Positive

K.7 Substrate

Masonry, >75 mm thick

Positive

PAS Standard Benchmark

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

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.

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.

Wall Construction: Wall Type 3 - brick slips over XPS insulation

Construction Reference
6JP7G9

This wall construction was identified by wall inspections M72IGM, U74VSF, and U1F42K. The build-up, cavity barrier, and floor slab information is taken directly from inspection M72IGM. See the Inspections section of this report for full inspection details.

Construction	Effect	Risk
Wall Type 3 - brick slips over XPS insulation (6JP7G9)	Neutral	Medium

Build-Up

3 Elements	Thickness/Depth	Material	Rating (BS EN13501)
Surface Finish	15mm	Brick Slip / Brick Tile	A1 - Non-Combustible
Insulation	100mm	XPS Insulation	D - Highly Combustible
Inner Leaf Support (Backing Wall)	102mm	Original brickwork	A1 - Non-Combustible

Cavity Barriers

No external cavity

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

Negative

K.2 External Surfaces

Class A1/A2

Positive

K.3 Facings/Cladding Panels

Adhesive fixed

Positive

K.4 Panel Construction

No gaps between panels

Positive

K.5 Cavities

Facings into the cavity combustible, but Class C or lower

Negative

K.6 Insulation

Thermoplastics that do not form a stable char on fire exposure (e.g. EPS/XPS)

Negative

K.7 Substrate

Masonry, >75 mm thick

Positive

K.8 Sheathing Boards

Not Applicable

K.9 Insulated Core Panels

Not Applicable

K.10 ETICS

Not Applicable

K.11 Infill / Spandrel Panels

Not Applicable

PAS Standard Benchmark

L3 Benchmark

Thermoplastic insulation

- EPS foam
- XPS foam
- "Multifoil insulation" (e.g. layers of reflective foil and thermoplastic fibre wadding or bubble-wrap type material)
- Importance of cavities being formed on heating

Thermoplastic insulation typically offers poor fire performance and so is reliant upon encapsulation to achieve safe external wall construction.

Thermoplastic insulation will, by definition, melt on heating, so any space which is occupied by a thermoplastic insulation needs to be assumed as becoming a cavity lined with combustible residue once involved in fire.

Encapsulation of thermoplastic insulation therefore needs to retain its integrity and likely needs to retain its shape when exposed to fire; it cannot be reliant upon the thermoplastic insulation to do this.

It is generally accepted that thermoplastic insulation will be installed below damp-proof course (DPC) level in buildings, given the need to mitigate against damp.

This is unlikely to have a significant impact on fire risk.

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.

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: EVTIJS

Items in Façade

4 Items

	Effect	Risk
Wall Construction Wall Type 1 - Stonewall over mineral wool (Y7EPLC)	Positive	Low
External Door Single Leaf Entrance Doors (SWA23R)	Positive	Low
External Window Top, Mid, Side Hung Casements (V7VTYJ)	Positive	Low
Penetration Ventilation (BF6B2Q)		

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 accidentally 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

Cavity limited in extent and running horizontally only

Neutral

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:

- they are either protected by cavity barriers (including ADB “deemed to satisfy” alternatives);

or

- the cavity is not a medium for fire spread between compartments (e.g. because it has adequate cavity barriers on compartment lines or does not connect multiple compartments)

Positive

N.11 Attachments

Non-combustible open balconies

(Where these extend along a façade, they have the potential both to:

- interrupt a cavity; and
- deflect flames away from the building and away from the façade)

Neutral

N.12 Proximity of Combustible Elements of a Façade to a Neighbouring Building

The building is more than 20 metres away from any other structure

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.



Façade Configuration: PZ9X4Q

Items in Façade

4 Items	Effect	Risk
Wall Construction Wall Type 2 - render over mineral wool (D9PJX4)	Positive	Low
External Door Single Leaf Entrance Doors (SWA23R)	Positive	Low
External Window Top, Mid, Side Hung Casements (V7VTYJ)	Positive	Low
Penetration Ventilation (BF6B2Q)		

Façade Configuration Risk Factors

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 accidentally or deliberately) igniting the cladding is highly unlikely.

Neutral

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

Positive

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

N.11 Attachments

Non-combustible open balconies

(Where these extend along a façade, they have the potential both to:

- interrupt a cavity; and
- deflect flames away from the building and away from the façade)

Neutral

N.12 Proximity of Combustible Elements of a Façade to a Neighbouring Building

The building is more than 20 metres away from any other structure

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.



Façade Configuration: 5SDU5K

Items in Façade

4 Items

	Effect	Risk
Wall Construction Wall Type 3 - brick slips over XPS insulation (6JP7G9)	Neutral	Medium
External Door Single Leaf Entrance Doors (SWA23R)	Positive	Low
External Window Top, Mid, Side Hung Casements (V7VTYJ)	Positive	Low
Penetration Ventilation (BF6B2Q)		

Façade Configuration Risk Factors

N.1 Building Height/Cladding Height

<11 m

Negative

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 accidentally or deliberately) igniting the cladding is highly likely.

Negative

N.3 Extent of Cladding

Limited in extent such as to delay fire spread over the external walls

Neutral

N.4 Cavities & Openings

No cavity

Positive

N.5 Infill / Spandrel Panels

Not Applicable

N.6 Setbacks - Combustible Cladding Setback from Wall Edge

Not Applicable

N.7 Overhangs & Projections

Not Applicable

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 vent passes through a cavity that contains combustible elements with no identified proprietary means of fire stopping

Negative

N.11 Attachments

Not Applicable

N.12 Proximity of Combustible Elements of a Façade to a Neighbouring Building

The building is more than 20 metres away from any other structure

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.



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

Within Flats: Smoke alarms are installed to LD1 and LD2 standards.

LD1: Smoke detectors in all rooms except wet rooms.

LD2: Smoke detectors in all-risk rooms (Living Room, Kitchen, Hallway).

Sampled flats indicate a mix of LD1 and LD2 installations.

Any void properties are being upgraded to an LD1 system.

Heat detectors in kitchens are recommended as a future improvement.

No automatic fire detection in communal areas. There is a part 1 system that covers the lift shaft.

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 appear to be 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, Mechanical smoke control

Smoke Control

Automatic Opening Vents (AOVs) installed:
Located at stairwell head on the 14th floor.
Control panels at ground floor lobby and 14th floor staircase.
Biannual servicing (April & October) in accordance with BS 7346.

Suppression Systems

Partial sprinkler system installed (Detailed in Description)

Suppression System

Bin Store: A deluge system is installed.

Fire Fighting Facilities

Dry Riser

Fire Fighting Facilities

Dry riser inlet cabinet: Located in the entrance lobby.
Secured with a budget lock.
Dry riser outlets:
Exposed outlets located on communal lobbies on each floor.
Secured with cable ties, checked regularly by caretakers.

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

The fire hydrant for Elmcroft is located externally to the right-hand side of the main 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

Good standard of signs was found for wayfinding, fire door, floor level and advisory notices

Property Type

Apartment Block, Residential Purpose-built

Building Era / Age

Known Build Date

Known Build Date

Elmcroft was developed circa 1963

Building Height

From lowest point at ground to the upper most finished floor, Elmcroft is approximately 45 metres in height.

Approx Floor Area Per Floor

The approximate footprint of Elmcroft is 400m²

Number of Storeys (Ground and above)

Elmcroft is 15 storeys including ground

Number of Basement Levels

None

Number of Flats

Elmcroft caters for 90 self contained flats

Flat Types

Single Storey

Structural Wall Material

The original structure appears to be of reinforced concrete frame with reinforced staircores, lift core, floor slabs and foundations, the original external walls are formed from solid brickwork with blockwork internal infill walls.

Structural Floor Material

Reinforced Concrete

Structural Stairs Material

Concrete

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)

Following refurbishment in 2014, external wall finishes are now formed from brick slips over XPS insulation, high density stonewall cladding panels over mineral wool insulation and incidental polyester powder coated spandrel panels.

Electronic Entrance System

Yes

Carpark

External/Outdoor Carpark

Employees

None

Residents

Yes

Approx number of Residents

180

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. These will allow all persons in the premises to evacuate safely in the event of fire. 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

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

What is the recommended evacuation strategy for the property?

Stay Put

Aerial Perspective: Elmcroft

Aerial image of Elmcroft and the surrounding area



Elevations

Photo	Name	No. of Storeys
-------	------	----------------



North Elevation

15 Storeys



South Elevation

15 Storeys



East Elevation

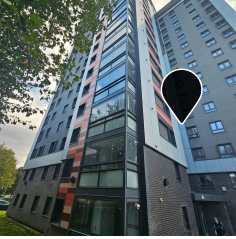
15 Storeys

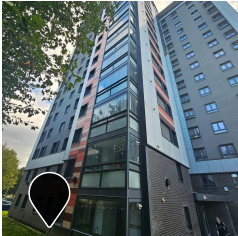
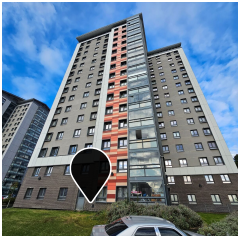


West Elevation

15 Storeys

Inspections

Elevation Location	Inspection	Elements
	Inspection: DSTG8L Survey locations as tagged Accessible wall	• Surface Finish (Stonewall rainscreen panels) • Cavity • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall) (Original brickwork)
	Inspection: UWC6JJ Survey locations as tagged Accessible wall	• Surface Finish (Stonewall rainscreen panels) • Cavity • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall) (Original brickwork)
	Inspection: NM69MK Survey locations as tagged Accessible wall	• Surface Finish (Stonewall rainscreen panels) • Cavity • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall) (Original brickwork)
	Inspection: 6Q4YKN Survey locations as tagged Accessible wall	• Surface Finish (Render) • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall) (Original brickwork)
	Inspection: RXSTEY Survey locations as tagged Accessible wall	• Surface Finish (Render) • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall) (Original brickwork)
	Inspection: E21V2A Accessible wall	• Surface Finish (Render) • Insulation (Mineral Wool Insulation) • Inner Leaf Support (Backing Wall) (Original brickwork)

Elevation Location	Inspection	Elements
	Inspection: M72IGM Survey locations as tagged Accessible wall	• Surface Finish (Brick Slip / Brick Tile) • Insulation (XPS Insulation) • Inner Leaf Support (Backing Wall) (Original brickwork)
	Inspection: U74VSF Survey locations as tagged Accessible wall	• Surface Finish (Brick Slip / Brick Tile) • Insulation (XPS Insulation) • Inner Leaf Support (Backing Wall) (Original brickwork)
	Inspection: U1F42K Survey locations as tagged Accessible wall	• Surface Finish (Brick Slip / Brick Tile) • Insulation (XPS Insulation) • Inner Leaf Support (Backing Wall) (Original brickwork)

Inspection: DSTG8L

Elevation • Location
Survey locations as tagged • Accessible wall



Name/Summary

Wall Type 1 - Stonewall Rainscreen panels

Build-Up

4 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	10mm	Stonewall rainscreen panels Material Brand: Rockwool		A1 - Non-Combustible
Cavity	50mm			
Insulation		Mineral Wool Insulation		A1 - Non-Combustible
Inner Leaf Support (Backing Wall)	102mm	Original brickwork		A1 - Non-Combustible

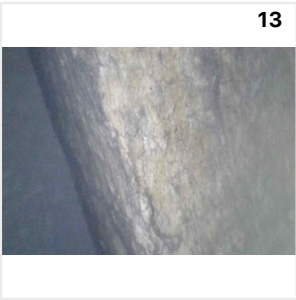
Cavity Barriers

1 Cavity Barrier	Material	Photo Ref.
Horizontal Cavity Barrier	Open State Cavity Barrier	

Floor Slab

Backing Wall Sits On The Floor Slab

Inspection Photos



Inspection: UWC6JJ

Elevation • Location
Survey locations as tagged • Accessible wall



Name/Summary

Wall Type 1 - Stonewall Rainscreen panels

Build-Up

4 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	10mm	Stonewall rainscreen panels Material Brand: Rockwool		A1 - Non-Combustible
Cavity	50mm			
Insulation		Mineral Wool Insulation		A1 - Non-Combustible
Inner Leaf Support (Backing Wall)	102mm	Original brickwork		A1 - Non-Combustible

Cavity Barriers

1 Cavity Barrier	Material	Photo Ref.
Horizontal Cavity Barrier	Open State Cavity Barrier	

Floor Slab

Backing Wall Sits On The Floor Slab

Inspection: NM69MK

Elevation • Location
Survey locations as tagged • Accessible wall



Name/Summary

Wall Type 1 - Stonewall Rainscreen panels

Build-Up

4 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	10mm	Stonewall rainscreen panels Material Brand: Rockwool		A1 - Non-Combustible
Cavity	50mm			
Insulation		Mineral Wool Insulation		A1 - Non-Combustible
Inner Leaf Support (Backing Wall)	102mm	Original brickwork		A1 - Non-Combustible

Cavity Barriers

1 Cavity Barrier	Material	Photo Ref.
Horizontal Cavity Barrier	Open State Cavity Barrier	

Floor Slab

Backing Wall Sits On The Floor Slab

Inspection: 6Q4YKN

Elevation • Location
Survey locations as tagged • Accessible wall



Name/Summary

Wall Type 2 - Render over mineral wool 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 Material Brand: Rockwool		A1 - Non-Combustible
Inner Leaf Support (Backing Wall)	102mm	Original brickwork		A1 - Non-Combustible

Cavity Barriers

No external cavity

Floor Slab

Backing Wall Sits On The Floor Slab

Inspection Photos



Inspection: RXSTEY

Elevation • Location
Survey locations as tagged • Accessible wall



Name/Summary

Wall Type 2 - Render over mineral wool 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 Material Brand: Rockwool		A1 - Non-Combustible
Inner Leaf Support (Backing Wall)	102mm	Original brickwork		A1 - Non-Combustible

Cavity Barriers

No external cavity

Floor Slab

Backing Wall Sits On The Floor Slab

Inspection: E21V2A

Location
Accessible wall

Name/Summary

Wall Type 2 - Render over mineral wool 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 Material Brand: Rockwool		A1 - Non-Combustible
Inner Leaf Support (Backing Wall)	102mm	Original brickwork		A1 - Non-Combustible

Cavity Barriers

No external cavity

Floor Slab

Backing Wall Sits On The Floor Slab

Inspection: M72IGM

Elevation • Location
Survey locations as tagged • Accessible wall



Name/Summary

Wall Type 3 - brick slip over XPS insulation

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	15mm	Brick Slip / Brick Tile		A1 - Non-Combustible
Insulation	100mm	XPS Insulation		D - Highly Combustible
Inner Leaf Support (Backing Wall)	102mm	Original brickwork		A1 - Non-Combustible

Cavity Barriers

No external cavity

Floor Slab

Backing Wall Sits On The Floor Slab

Inspection Photos



Inspection: U74VSF

Elevation • Location
Survey locations as tagged • Accessible wall



Name/Summary

Wall Type 3 - brick slip over XPS insulation

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	15mm	Brick Slip / Brick Tile		A1 - Non-Combustible
Insulation	100mm	XPS Insulation		D - Highly Combustible
Inner Leaf Support (Backing Wall)	102mm	Original brickwork		A1 - Non-Combustible

Cavity Barriers

No external cavity

Floor Slab

Backing Wall Sits On The Floor Slab

Inspection: U1F42K

Elevation • Location
Survey locations as tagged • Accessible wall



Name/Summary

Wall Type 3 - brick slip over XPS insulation

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	15mm	Brick Slip / Brick Tile		A1 - Non-Combustible
Insulation	100mm	XPS Insulation		D - Highly Combustible
Inner Leaf Support (Backing Wall)	102mm	Original brickwork		A1 - Non-Combustible

Cavity Barriers

No external cavity

Floor Slab

Backing Wall Sits On The Floor Slab

Penetrations

Photo

Penetration

No Image

Ventilation (BF6B2Q)
Inspection Type: Visual

Penetration: Ventilation

Penetration Reference
BF6B2Q

Details

Photo

1 Image

Inspection Type

Visual

External Windows

Photo

External Window



Top, Mid, Side Hung Casements (V7VTYJ)

External Window: Top, Mid, Side Hung Casements

External Window Reference
V7VTYJ

Details

Surface Material

Aluminium

Frame Material

Timber

Infill / Panel Material

Toughened Glass

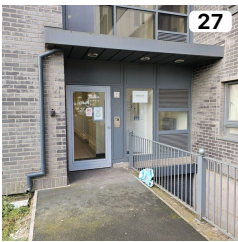
Photos



External Doors

Photo

External Door



Single Leaf Entrance Doors (SWA23R)

External Door: Single Leaf Entrance Doors

External Door Reference
SWA23R

Details

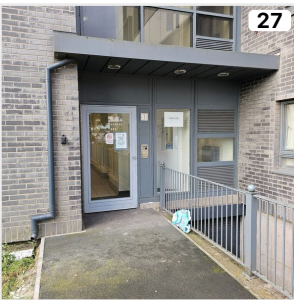
Surface Material

PPC aluminium

Frame Material

PPC aluminium

Photos



Plan: Survey locations as tagged



Plan: Survey locations as tagged



Plan: Survey locations as tagged



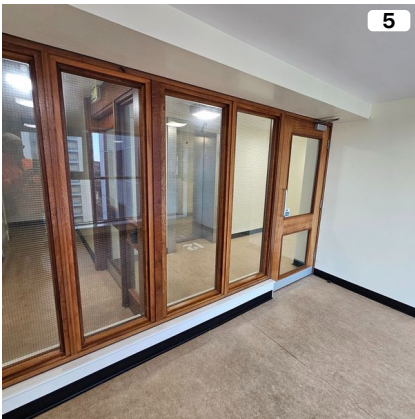
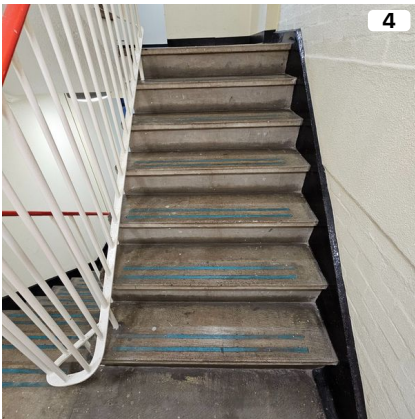
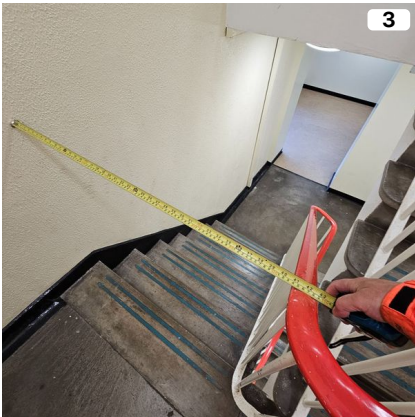
Plan: Survey locations as tagged



Plan: Survey locations as tagged



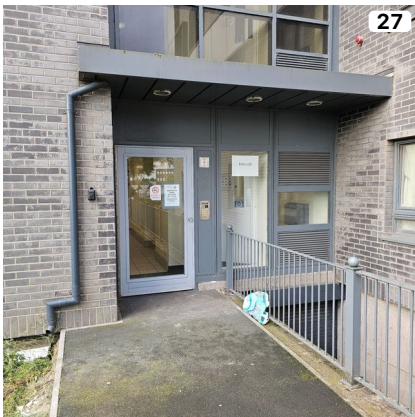
Photos



Photos Continued...



Photos Continued...





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