



FIRNTEC
BUILDING COMPLIANCE

Unit 4a, Darklake View,
Estover
Plymouth
PL6 7TL

Document Version 2
Survey Date 26/03/2025
Suggested Review Date 26/03/2030

FIRE RISK APPRAISAL EXTERNAL WALLS

ASPEN HOUSE

Aspen House
Meadow Avenue
West Brom
B71 3EN

Table of Contents

Cover Page	1
Table of Contents	2
Summary	4
Abbreviation/ Term Definition	6
Statement of Competency	7
Terms of Reference	8
Supporting Documents	10
Executive Summary	11
Fire Strategy	15
Wall Constructions	18
Wall Construction: Brickwork (CUK9MK)	19
Wall Construction: Render ETICS (7EZG9B)	23
Façade Configuration: H6YBDU	27
Façade Configuration: BF5HH2	30
Appendix	34
Asset Information	35
Aerial Perspective: ASPEN HOUSE	40
Elevations	41
Inspections	43
Inspection: YMZNXE	45
Inspection: FQTR57	47
Inspection: YMPR3T	49
Inspection: 9YWVZM	51
Inspection: WNPW8C	53
Inspection: 392KIE	55
Attachments & Balconies	56
Attachment: Cantilever Balcony (UEK477)	57
External Windows	59
External Window: Top, Mid, Side Hung Casements (NQ8M5D)	60
External Doors	62
External Door: Single Leaf Entrance Doors (92DW4J)	63

Table of Contents Continued

External Door: Single Leaf Entrance Doors (WUSXBJ)	64
Plans & Elevations	66
Photos	68

Summary

Fire Risk Appraisal External Walls

Assessment and Certificate Reference

RB-TF8HT5

Assessed On, By

26/03/2025, Dean Partridge MIFireE

Recommended Review Date

26/03/2030

Produced For the Responsible Person

Sandwell Metropolitan Council

Specification Conforms To

Our own internal quality system.

Assessment Scope

Assessment applies only to the building specified.

Assessed Property

Property Name

Aspen House

Property Reference

RB-WEDGPJ

Address

Aspen House
Meadow Avenue
West Brom
B71 3EN

Assessing Organisation

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

Assessor Remarks

Competency

Dean Partridge MIFireE

I have 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.

I have 15 years within the fire, compliance and technical building services requirement for the built environment. Prior to that I worked as designer and installer manager for M&E companies, audit and assessment, plus construction clerk of works duties and technical competent persons assessments for 20 years. I am a Member Level of the Institute of Fire Engineers (MIFireE) No 65723. I conduct strategic independent fire engineering and consultancy work in both new build and existing buildings. This is in the form of Fire strategies, fire risk assessments, fire engineering reports and scheme specific reporting (such as FRAEWs or Building Safety Cases etc). I keep present, relevant and suitable by adherence to CPD improvement and am currently undertaking the RICS EWS training programme along with final submittal of technical paper for IEng status in Fire Engineering. I have sufficient knowledge, skills and experience in relation to fire safety of external walls to be able to complete an assessment at the level required. Plus the relevant skill, knowledge and experience to manage and interpret the results of intrusive inspections with knowledge and experience, I have the competence to appraise and assess the nature of external wall construction in terms of fire performance and provide an opinion on the risk.

For this assessment, I conducted a desktop review of the intrusive cladding survey provided against PAS9980 and my own technical library of EWS documents such as Cladding for Surveyors, Fire Safety in purpose-built blocks of flats, High Rise/High Risk buildings, and drawing upon Approved Document B and BS fire guidance documents where applicable. There are no conflicts of interest of any kind, other than any which are disclosed in the report.

I was able to see images of sections and samples of details of different wall types/balconies/attachments, and where provided, at suitable junctions to assess compartmentation, firestopping and wall build up detail in context with occupancy and existing active and passive safety features present in the building. Review comments and conclusion sections of this document are my independent appraisal of the risks from information reviewed and remedial actions and have not been influenced in any way by the opinions or actions of others except where stated.

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).

Supporting Documents

The following documentation was requested for review prior to our visit. Any provided documentation has been reviewed and considered as part of our findings. The range, quality and reliability of the information contained in the provided documents have been examined and deemed satisfactory for completing this FRAEW report:

Document	Received
External wall survey Firntec Pas9980 Intrusive external wall inspection	Received
Fire Risk Assessment (04/02/2025) Anthony Smith Meadow_Avenue_1_71__Internal council FRA	Received

Executive Summary

External Wall Systems and Attachments on the Building

6 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 Brickwork (CUK9MK)	Neutral	Low
Wall Construction Render ETICS (7EZG9B)	Neutral	Low
Attachment Cantilever Balcony (UEK477)	Neutral	Medium
External Window Top, Mid, Side Hung Casements (NQ8M5D)	Neutral	Low
External Door Single Leaf Entrance Doors (92DW4J)	Neutral	Low
External Door Single Leaf Entrance Doors (WUSXBJ)	Neutral	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 **H6YBDU** which includes wall construction **CUK9MK**.

Conclusion: 100mm brick, to a further masonry brick. with Mineral wool cavity infill to concrete substrate.

The outer leaf is 100mm masonry brickwork. Masonry brickwork in external walls offers strong fire resistance due to its non-combustible properties and high thermal mass. Bricks are inherently resistant to fire and do not ignite, burn, or contribute fuel to a fire, making them excellent for containing flames and preventing fire spread. During a fire, brickwork reacts by absorbing and gradually dissipating heat, though intense, prolonged heat may cause cracking or spalling (surface breakage) due to thermal expansion. Despite these effects, the overall structure of brick masonry generally remains intact, ensuring the wall continues to act as a robust barrier against fire, heat, and smoke, which enhances its reliability in fire protection.

Beyond the external surface material at ground floor level is a 90mm open state cavity partially filled with non-combustible mineral wool insulation.

The concrete substrate is non-combustible material with high fire resisting properties. The plasterboard inner leaf is considered limited in combustibility to prevent the passage of fire through the external wall system. No conclusion can be formed on the installation, fixing methods and spacings of fixings of the plasterboard sheets to confirm its installation as per the manufacturers guidelines.

Cavity barriers to windows are closed by construction and the compacted infill mineral wool, this is a tolerable risk.

Penetrations through this wall type are compacted with mineral wool insulation.

This wall type will not propagate rapid fire spread between compartments vertically or horizontally or vertically.

The location of this wall type is at ground floor level only.

In the event of a fire, fire spread is generally 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.

It is our professional opinion that given the analysis of this external wall type, that there is no requirement for remediation.



Risk Factor Analysis 2

This analysis looks at façade configuration **BF5HH2** which includes wall construction **7EZG9B**.

Conclusion: The ETICs system assessed is an 9mm Sto render finish directly over 90mm mineral wool that fully fills the cavity to the original masonry structure.

The final finish render coat is a fire classification of A2-s1,d0 which indicates limited combustibility, meaning the material does not contribute significantly to the spread of fire.

The s1: refers to the smoke emission level, with s1 indicating little or no smoke production.

The d0: relates to the production of flaming droplets and particles, with d0 indicating no flaming droplets or particles

Beyond the external surface material is a cavity space that is fully filled with 90mm mineral wool. The Mineral wool is viewed as presenting a non-combustible product. This means this product will not ignite as such this poses a low risk to the contribution of fire and external fire spread.

The mineral wool is fixed by supporting external wall fixing pins to the inner leaf non combustible masonry system.

The fully filled cavity presents a barrier to fire spread and the location is at ground floor level with no gaps in insulation to allow horizontal or vertical fire and smoke paths The concrete substrate is non-combustible.

The plasterboard inner leaf internal wall is considered limited in combustibility to prevent the passage of fire through the external wall system.

No conclusion can be formed on the installation, fixing methods and spacings of fixings of the plasterboard sheets to confirm its installation as per the manufacturers guidelines.

Penetrations through this wall type are compacted with mineral wool insulation.

This wall type will not propagate rapid fire spread between compartments vertically or horizontally or vertically.

Windows are A1 non combustible aluminium frames.

The balcony attachments to this wall type have been assessed and the relationship, construction characteristics and proximity to means of escape routes is remote with no significant risk from the class B-s1,d0 panels used on the balcony balustrades.

The wall type has been assessed against the L10 performance benchmark.

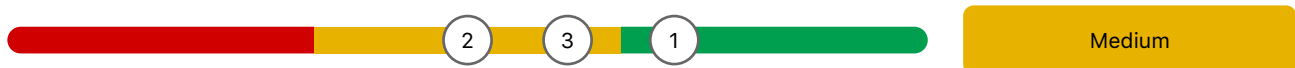
This system was identified from first floor on all elevations including spandrels below windows and this will contribute to rapid fire spread between floors and compartments.

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.

It is our professional opinion that given the analysis of this attachment type, that there is no requirement for remediation.



Overall Building Risk Rating



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

F.3 Escape Route Design

Extended travel distances ≤ 15 m (with supporting smoke control)

Neutral

F.4 Compartmentation

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

Neutral

F.5 Smoke Control

Arrangements in which openable windows, AOVs or inlets and outlets of mechanical systems are of a satisfactory proximity away 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

Neutral

F.6 Fire Alarm & Detection

Domestic smoke and heat alarms within flats, Category LD2 or LD3

Neutral

F.7 Fire Suppression

A suppression system is installed within high risk areas such as the refuse/bin store

Neutral

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.

Neutral

F.9 Rising Mains

Suitable rising main present

Neutral

F.10 Lifts Used By Firefighters

Absence of firefighting lift in buildings above 18 m

Negative

Fire Service Intervention

Event	Seconds	Minutes & Seconds
Initiation to fire detection	120 Seconds	2 Minutes
Actuation Of Fire Detector To Transmission Of Alarm	60 Seconds	1 Minute
Processing By Central Monitoring Station	10 Seconds	10 Seconds
Receipt of call by fire service mobilising control	60 Seconds	1 Minute
Transmission To Fire Station And Response	10 Seconds	10 Seconds
Travelling Time Of Fire Service	360 Seconds	6 Minutes
Arrival Protocol And Entry Preparation Time	180 Seconds	3 Minutes
Firefighting Travel In Firefighting Lift	0 Seconds	—
Firefighter travel to operational bridgehead	270 Seconds	4 Minutes 30 Seconds
Firefighter Travel Walking Up Two Flights Of Stairs To Fire Floor (75 Seconds)	75 Seconds	1 Minute 15 Seconds
Total Time	1,145 Seconds	19 Minutes 5 Seconds

Nearest Fire Station

West Bromwich Fire Station, 2.4 miles away.

Wall Constructions

Wall Construction

Build-up

Brickwork (CUK9MK)

- Surface Finish (Brickwork)
- Insulation (Mineral Wool Insulation)
- Inner Leaf Support (Backing Wall) (Concrete slab)

Render ETICS (7EZG9B)

- Surface Finish (Sto render)
- Insulation (Mineral Wool Insulation)
- Inner Leaf Support (Backing Wall) (Concrete wall)

Wall Construction: Brickwork

Construction Reference
CUK9MK

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

Construction	Effect	Risk
Brickwork (CUK9MK)	Neutral	Low

Build-Up

3 Elements	Thickness/Depth	Material	Rating (BS EN13501)
Surface Finish	100mm	Brickwork	A1 - Non-Combustible
Insulation	90mm	Mineral Wool Insulation	A1 - Non-Combustible
Inner Leaf Support (Backing Wall)		Concrete slab	

Cavity Barriers

1 Cavity Barrier	Material
Horizontal Cavity Barrier	Solid State Mineral Wool

Floor Slab

Reinforced concrete

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

Positive

K.3 Facings/Cladding Panels

Low HRR

Positive

K.4 Panel Construction

Not Applicable

K.5 Cavities

Cavities closed by barriers/fire stopping located in line with all of the following:

- compartment floors;
- compartment walls;
- around openings, e.g. windows, doors; and
- ventilation ducts, grilles and other openings for services

Positive

K.6 Insulation

Mineral/glass insulation

Positive

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

K.12 Internal Finishes

Plasterboard

Note: The plasterboard can not be confirmed to be installed as per the manufacturers instructions or ensure its method of fixing

Fire Engineer Comments

Fire class A1 Masonry brickwork in external walls offers strong fire resistance due to its non-combustible properties and high thermal mass. Bricks are inherently resistant to fire and do not ignite, burn, or contribute fuel to a fire, making them excellent for containing flames and preventing fire spread.

During a fire, brickwork reacts by absorbing and gradually dissipating heat, though intense, prolonged heat may cause cracking or spalling (surface breakage) due to thermal expansion. Despite these effects, the overall structure of brick masonry generally remains intact, ensuring the wall continues to act as a robust barrier against fire, heat, and smoke, which enhances its reliability in fire protection.

Fire class A1 Mineral wool solid state insulation fills the 90mm cavity, with the insulation packed to penetration vent and flue pipes.

Substrate is A1 concrete

Brickwork façade location is at ground floor only

Positive

PAS Standard Benchmark

L7 Benchmark

DOUBLE SKIN MASONRY

As set out previously in this PAS, a building whose external walls are composed exclusively of this form of construction is not ordinarily expected to require an FRAEW. However, it is recognized that this form of wall construction might be mixed with other forms of wall construction.

This form of construction constitutes the lowest risk form of construction that might be used for external walls, for the following reasons.

- Each leaf of the wall, provided it is formed of masonry/concrete at least 75 mm thick and is generally well constructed, is likely to provide at least 30 min fire resistance.
- The masonry/concrete is likely to be of limited combustibility or better.

Given the above, this form of construction is invariably accepted as:

- not requiring cavity barriers generally, except that cavity closers are needed so that there is no free flow of air through the cavity; and
- being able to accommodate combustible materials within the cavity irrespective of building height.

This is illustrated in Diagram 8.2 in ADB Volume 1:2019 [8]. The equivalent diagram in Volume 2:2019 [9] is Diagram 9.2.

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: Render ETICS

Construction Reference
7EZG9B

This wall construction was identified by wall inspections FQTR57, 9YWVZM, WNPW8C, 392KIE, and YMPR3T. The build-up, cavity barrier, and floor slab information is taken directly from inspection FQTR57. See the Inspections section of this report for full inspection details.

Construction

Effect

Risk

Render ETICS (7EZG9B)

Neutral

Low

Build-Up

3 Elements

Thickness/Depth

Material

Rating (BS EN13501)

Surface Finish

9mm

Sto render

A2 - Limited
Combustibility

Backed onto rockwool slab

Insulation

90mm

Mineral Wool Insulation

A1 - Non-Combustible

Inner Leaf
Support (Backing
Wall)

Concrete wall

A1 - Non-Combustible

Cavity Barriers

1 Cavity Barrier

Material

Horizontal Cavity Barrier

Solid State Mineral Wool

Floor Slab

Reinforced concrete

Fire Performance

K.1 General

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

Positive

K.2 External Surfaces

Class A2

Positive

K.3 Facings/Cladding Panels

Low HRR

Positive

K.4 Panel Construction

Not Applicable

K.5 Cavities

Cavities closed by barriers/fire stopping located in line with all of the following:

- compartment floors;
- compartment walls;
- around openings, e.g. windows, doors; and
- ventilation ducts, grilles and other openings for services

Positive

K.6 Insulation

Mineral/glass insulation

Positive

K.7 Substrate

Masonry, >75 mm thick

Positive

K.8 Sheathing Boards

Not Applicable

K.9 Insulated Core Panels

Not Applicable

K.10 ETICS

Thin organic render or inorganic render on Class A1/A2 insulation

Positive

K.11 Infill / Spandrel Panels

A1 Aluminium panels, with Class A1/A2 core and fan penetrations in between glazing on North elevation

Positive

ETICs System as spandrels below windows (A2 9mm Sto Render/90mm A1 Mineral wool)

Positive

K.12 Internal Finishes

Plasterboard

Note: The plasterboard can not be confirmed to be installed as per the manufacturers instructions or ensure its method of fixing

Neutral

Fire Engineer Comments

The ETICs system assessed is an 9mm Sto render finish directly over 90mm mineral wool. The mineral wool is fixed by supporting external wall fixing pins to the inner leaf masonry system. The render material is considered to be non-combustible and presents a low contributor to the development of external fire spread.

Neutral

PAS Standard Benchmark

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.

Façade Configuration: H6YBDU

Items in Façade

3 Items

	Effect	Risk
Wall Construction Brickwork (CUK9MK)	Neutral	Low
External Door Single Leaf Entrance Doors (WUSXBJ)	Neutral	Low
External Window Top, Mid, Side Hung Casements (NQ8M5D)	Neutral	Low

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)

<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 and not vertically aligned, such as to delay significantly fire spread to windows and other openings on upper levels

Positive

N.4 Cavities & Openings

Cavity limited in extent and running horizontally only

Neutral

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 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

Neutral

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

Remote from windows and openings, such that fire spread into the escape routes to give rise to untenable conditions is remote

Positive

N.11 Attachments

Not Applicable

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

Windows or other openings in adjacent or abutting neighbouring buildings are sufficiently distanced that direct flame impingement from a fire in the neighbouring building is unforeseeable

Neutral

Risk Factor Analysis

Conclusion: 100mm brick, to a further masonry brick. with Mineral wool cavity infill to concrete substrate.

The outer leaf is 100mm masonry brickwork. Masonry brickwork in external walls offers strong fire resistance due to its non-combustible properties and high thermal mass. Bricks are inherently resistant to fire and do not ignite, burn, or contribute fuel to a fire, making them excellent for containing flames and preventing fire spread. During a fire, brickwork reacts by absorbing and gradually dissipating heat, though intense, prolonged heat may cause cracking or spalling (surface breakage) due to thermal expansion. Despite these effects, the overall structure of brick masonry generally remains intact, ensuring the wall continues to act as a robust barrier against fire, heat, and smoke, which enhances its reliability in fire protection.

Beyond the external surface material at ground floor level is a 90mm open state cavity partially filled with non-combustible mineral wool insulation.

The concrete substrate is non-combustible material with high fire resisting properties. The plasterboard inner leaf is considered limited in combustibility to prevent the passage of fire through the external wall system. No conclusion can be formed on the installation, fixing methods and spacings of fixings of the plasterboard sheets to confirm its installation as per the manufacturers guidelines.

Cavity barriers to windows are closed by construction and the compacted infill mineral wool, this is a tolerable risk.

Penetrations through this wall type are compacted with mineral wool insulation.

This wall type will not propagate rapid fire spread between compartments vertically or horizontally or vertically.

The location of this wall type is at ground floor level only.

In the event of a fire, fire spread is generally 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.

It is our professional opinion that given the analysis of this external wall type, that there is no requirement for remediation.



Façade Configuration: BF5HH2

Items in Façade

4 Items

	Effect	Risk
Wall Construction Render ETICS (7EZG9B)	Neutral	Low
Attachment Cantilever Balcony (UEK477)	Neutral	Medium
External Door Single Leaf Entrance Doors (WUSXBJ)	Neutral	Low
External Window Top, Mid, Side Hung Casements (NQ8M5D)	Neutral	Low

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)

2 m to 5 m

NOTE At this height, the scope for a fire originating externally (e.g. involving a parked vehicle or waste skip started either accidentally or deliberately) igniting the cladding is considered possible, but not likely at an early stage in the development of the fire.

Neutral

N.3 Extent of Cladding

Entire façade covered

Negative

N.4 Cavities & Openings

No cavity

Positive

N.5 Infill / Spandrel Panels

In a vertical continuous line with windows such as to increase the likelihood of secondary fires

Negative

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, and 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 highly likely

Negative

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 connect multiple compartments)

Positive

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

Class B panels to flat balconies only, such that fire spread into the escape routes to give rise to untenable conditions is remote

Neutral

N.11 Attachments

Limited-combustible open balconies spanning single compartments.
concrete base floor/soffit
Class B panels on metal frame balustrade
Timber handrails

Neutral

(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)

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

Windows or other openings in adjacent or abutting neighbouring buildings are sufficiently distanced that direct flame impingement from a fire in the neighbouring building is unforeseeable

Neutral

Risk Factor Analysis

Conclusion: The ETICs system assessed is an 9mm Sto render finish directly over 90mm mineral wool that fully fills the cavity to the original masonry structure.

The final finish render coat is a fire classification of A2-s1,d0 which indicates limited combustibility, meaning the material does not contribute significantly to the spread of fire.

The s1: refers to the smoke emission level, with s1 indicating little or no smoke production.

The d0: relates to the production of flaming droplets and particles, with d0 indicating no flaming droplets or particles

Beyond the external surface material is a cavity space that is fully filled with 90mm mineral wool. The Mineral wool is viewed as presenting a non-combustible product. This means this product will not ignite as such this poses a low risk to the contribution of fire and external fire spread.

The mineral wool is fixed by supporting external wall fixing pins to the inner leaf non combustible masonry system.

The fully filled cavity presents a barrier to fire spread and the location is at ground floor level with no gaps in insulation to allow horizontal or vertical fire and smoke paths The concrete substrate is non-combustible.

The plasterboard inner leaf internal wall is considered limited in combustibility to prevent the passage of fire through the external wall system.

No conclusion can be formed on the installation, fixing methods and spacings of fixings of the plasterboard sheets to confirm its installation as per the manufacturers guidelines.

Penetrations through this wall type are compacted with mineral wool insulation.

This wall type will not propagate rapid fire spread between compartments vertically or horizontally or vertically.

Windows are A1 non combustible aluminium frames.

The balcony attachments to this wall type have been assessed and the relationship, construction characteristics and proximity to means of escape routes is remote with no significant risk from the class B-s1,d0 panels used on the balcony balustrades.

The wall type has been assessed against the L10 performance benchmark.

This system was identified from first floor on all elevations including spandrels below windows and this will contribute to rapid fire spread between floors and compartments.

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.

It is our professional opinion that given the analysis of this attachment type, that there is no requirement for remediation.



APPENDIX

Asset Information

Client Name

Sandwell Metropolitan Council

Responsible Person

Sandwell Metropolitan Council

Contact Details

0121 569 0162 - Lisa Ellis

Fire Alarm System

There is no BS5839 (Part 6 or Part 1) Fire detection/alarm system provided in the common areas of the building. The smoke detection provided is part of the smoke ventilation system. Smoke vents have their own control panels located within the riser cupboards.

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

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

Smoke Control

Natural smoke control, Smoke control installed

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

A suppression system is installed within high risk areas such as the refuse/bin store

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

Hydrant is located on the approach road to the front of the main entrance/main access point. Information for services is in the PIB.

Public fire hydrants can be located: <https://dataservices.riscauthority.co.uk/map/index>

Housekeeping

Good standard. Means of escape clear. Refuse stored appropriately

Secure Information Boxes

Secure information box (SIB) installed

Signage

Appropriate signage installed throughout premises

Property Type

Residential

Building Era / Age

Known Build Date

Known Build Date

1962

Guidance Applicable At Time Of Construction

CP3: Chapter IV: Part 1 (1962)

Building Height

Approximately 24m to the highest occupied floor level. (calculated at 3m per floor as per PAS 9980-2022 section 3.1.22)

Number of Storeys (Ground and above)

9

Number of Flats

36

Flat Types

Single Storey

Structural Wall Material

Concrete / Brick

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)

Render system with insulation, Trespa Class B HPL panels attached to balconies

Electronic Entrance System

Yes

Carpark

External/Outdoor Carpark

Employees

Day staff

Employees (Extended)

No staff on site (Occasional staff attendance expected - low numbers anticipated)

Residents

Yes

Approx number of Residents

72

Residents (Extended)

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

Visitors

Day

Approx number of Visitors

10

Visitors (Extended)

Residential block - low number of visitors expected at any one time

People With Reduced Mobility

None

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

1

Number Of Final Exits

2

External Means Of Escape

None Present

Types Of Lifts Installed

Passenger

Evacuation Chairs Installed

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

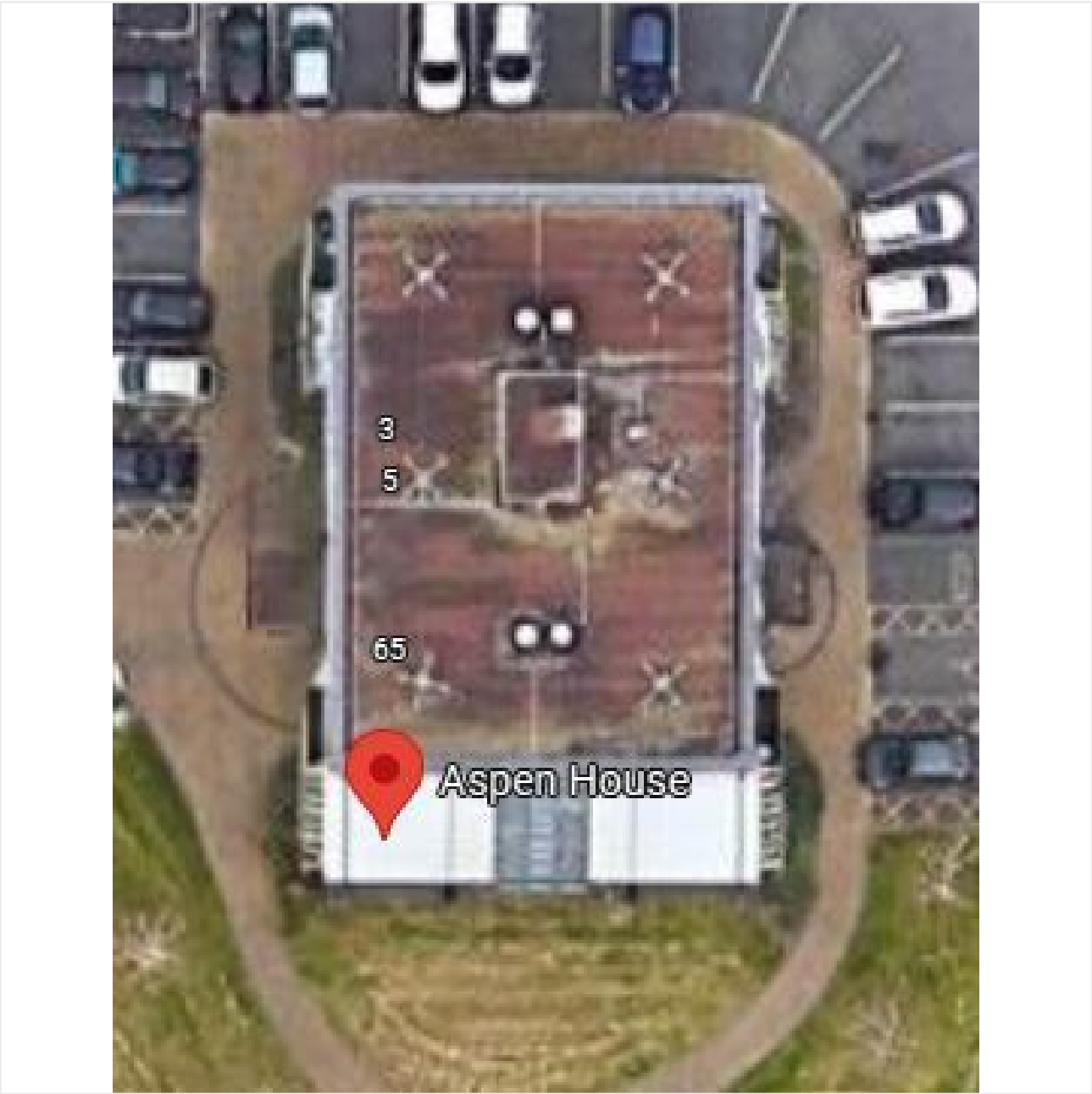
The premises is purpose-built with an adequate standard of compartmentation. The current Stay Put evacuation strategy is considered appropriate.

What is the recommended evacuation strategy for the property?

Stay Put

Aerial Perspective: ASPEN HOUSE

Aerial Perspective (picture sourced from Google Earth)



Elevations

Photo

Name

No. of Storeys

Features



NORTH

9 Storeys



EAST

9 Storeys

- Private Balconies Stacked



SOUTH

9 Storeys

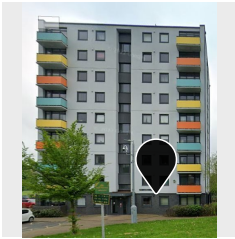
Photo	Name	No. of Storeys	Features
	WEST	9 Storeys	Private Balconies Stacked

Inspections

Elevation Location

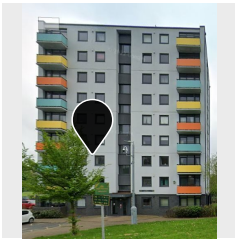
Inspection

Elements



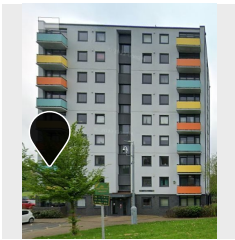
Inspection: YMZNXE
WEST 2
FLOOR SLAB LOCATION TO FIRST FLOOR

- Surface Finish (Brickwork)
- Insulation (Mineral Wool Insulation)
- Inner Leaf Support (Backing Wall) (Concrete slab)



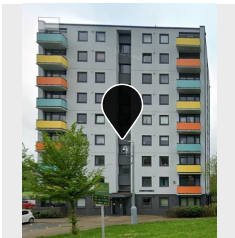
Inspection: FQTR57
WEST 2
Junction to window jam& head

- Surface Finish (Sto render)
- Insulation (Mineral Wool Insulation)
- Inner Leaf Support (Backing Wall) (Concrete wall)



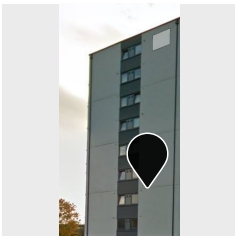
Inspection: YMPR3T
WEST 2
Balcony soffit

- Surface Finish (Suspected High Pressure Laminate (HPL) Panel)



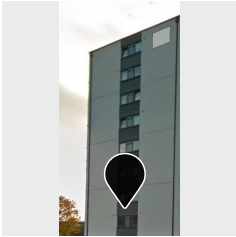
Inspection: 9YWVZM
WEST 2
BELOW WINDOW

- Surface Finish (Sto render)
- Insulation (Mineral Wool Insulation)
- Inner Leaf Support (Backing Wall) (Reinforced concrete)



Inspection: WNPW8C
NORTH
SECOND FLOOR LEVEL - VERTICAL AND HORIZONTAL COMPARTMENT

- Surface Finish (Sto render)
- Insulation (Mineral Wool Insulation)
- Inner Leaf Support (Backing Wall) (Reinforced concrete)



Inspection: 392KIE
NORTH
BELOW WINDOW - VERTICAL AND
HORIZONTAL JUNCTION WITH RENDER/
PANEL SYSTEM

No elements identified

Inspection: YMZNXE

Elevation • Location
WEST 2 • FLOOR SLAB LOCATION TO FIRST FLOOR



Name/Summary

BRICKWORK - WEST ELEVATION

Proposed Inspection

Cut out 3/4 bricks to expose construction behind.
Inspect the construction, cavity, insulation, junction with compartment floor slab, junction at compartment wall and window opening.
Replace any insulation removed with new.
Replace bricks with existing or new as required and mortar. We will match existing bricks and mortar as best as possible but cannot guarantee a perfect match. Access provided by lorry mounted cherry picker 21m height capacity by Firntec.

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	100mm	Brickwork	5, 6	A1 - Non-Combustible
Insulation	90mm	Mineral Wool Insulation	7, 8	A1 - Non-Combustible
Inner Leaf Support (Backing Wall)		Concrete slab	9, 10, 11	

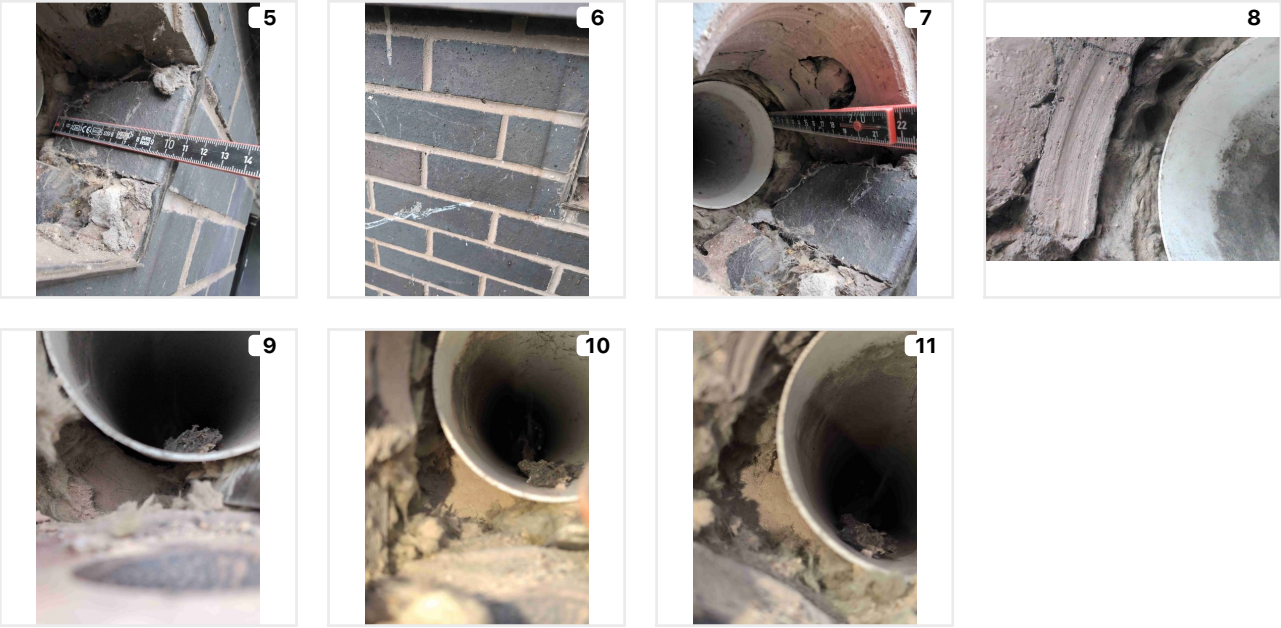
Cavity Barriers

1 Cavity Barrier	Material	Photo Ref.
Horizontal Cavity Barrier	Solid State Mineral Wool	

Floor Slab

Reinforced concrete

Build-up Photos



Inspection: FQTR57

Elevation • Location
WEST 2 • Junction to window jam& head



Name/Summary

RENDER SYSTEM - WEST ELEVATION

Description

Location moved due to restricted access on mewt.

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	9mm	Sto render	12, 13	A2 - Limited Combustibility
Backed onto rockwool slab				
Insulation	90mm	Mineral Wool Insulation	14, 15	A1 - Non-Combustible
Inner Leaf Support (Backing Wall)		Concrete wall	16, 17	A1 - Non-Combustible

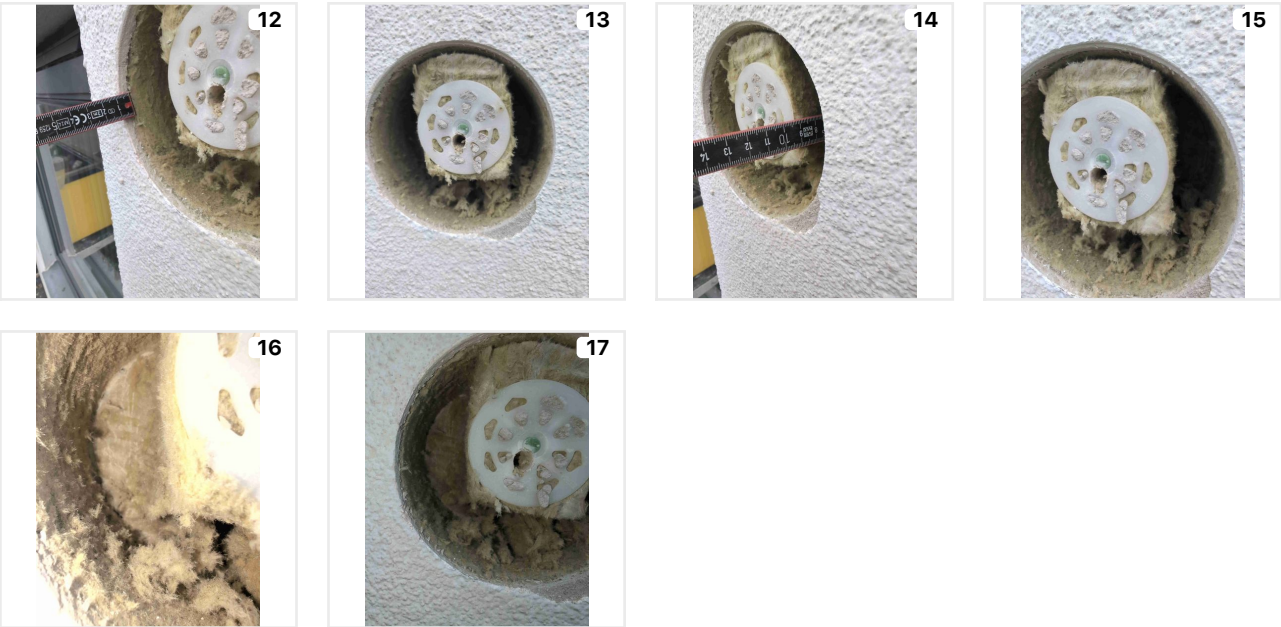
Cavity Barriers

1 Cavity Barrier	Material	Photo Ref.
Horizontal Cavity Barrier	Solid State Mineral Wool	

Floor Slab

Reinforced concrete

Build-up Photos



Inspection: YMPR3T

Elevation • Location
WEST 2 • Balcony soffit



Name/Summary

BALCONIES - WEST ELEVATION

Description

Balcony Visual
General check
Check balconies floor for construction material. Balcony floors, Handrail and glazing used.
Check if windows and doors are Aluminium/UPVC etc

PANELS/SOFFIT
Remove panel to expose the construction behind.
Inspect the construction, cavity, insulation and inner skin.
Replace any insulation removed with existing or new if required.
Replace panel.

Build-Up

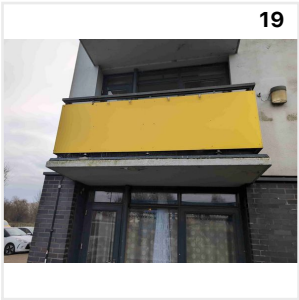
1 Element	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	8mm	Suspected High Pressure Laminate (HPL) Panel Material Brand: Trespa Panel	18, 19, 20, 21	B - Combustible

Trespa Panel

Floor Slab

Reinforced concrete

Build-up Photos



Inspection Photos



Inspection: 9YWVZM

Elevation • Location
WEST 2 • BELOW WINDOW



Name/Summary

Render section under window

Description

Render not spandrel.

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	9mm	Sto render	23, 24	A2 - Limited Combustibility
Backed up to rockwool slab				
Insulation	90mm	Mineral Wool Insulation	25, 26	A1 - Non-Combustible
Inner Leaf Support (Backing Wall)		Reinforced concrete	27, 28, 29	A1 - Non-Combustible

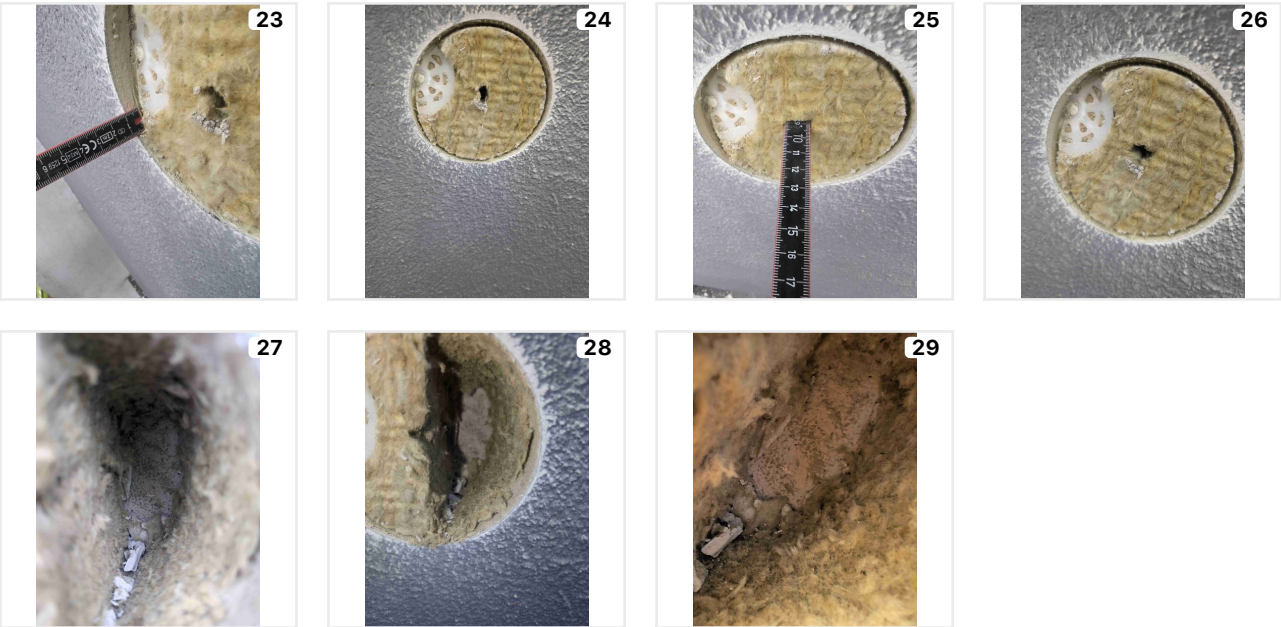
Cavity Barriers

1 Cavity Barrier	Material	Photo Ref.
Horizontal Cavity Barrier	Solid State Mineral Wool	

Floor Slab

Reinforced concrete

Build-up Photos



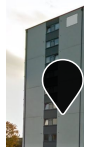
Inspection Photos



Inspection: WNPW8C

Elevation • Location

NORTH • SECOND FLOOR LEVEL - VERTICAL AND HORIZONTAL COMPARTMENT



Name/Summary

RENDER SYSTEM - NORTH ELEVATION

Proposed Inspection

Panel Inspection options

1. Remove panel if possible or conduct a core hole removal of external surface material

Assess material making up the wall type

Reinstate to a weathertight condition

2. If panel cannot be removed. Cut a 250mm core hole

Assess material making up the wall type

Reinstate to a weathertight condition

3. If access is restricted externally-From internal-

Cut out 200mm x 200mm inspection panel through internal plaster / plasterboard to expose construction behind.

Inspect the construction, cavity, insulation and junction with compartment floor slab, compartment wall and window opening

Replace any insulation removed with new

Replace plasterboard with existing / new as required fixing to a timber batten

Redecoration by the Building Management

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	9mm	Sto render	31, 32	A2 - Limited Combustibility
Backed up to rockwool slab				
Insulation	90mm	Mineral Wool Insulation	33, 34	A1 - Non-Combustible
Inner Leaf Support (Backing Wall)		Reinforced concrete	35, 36	A1 - Non-Combustible

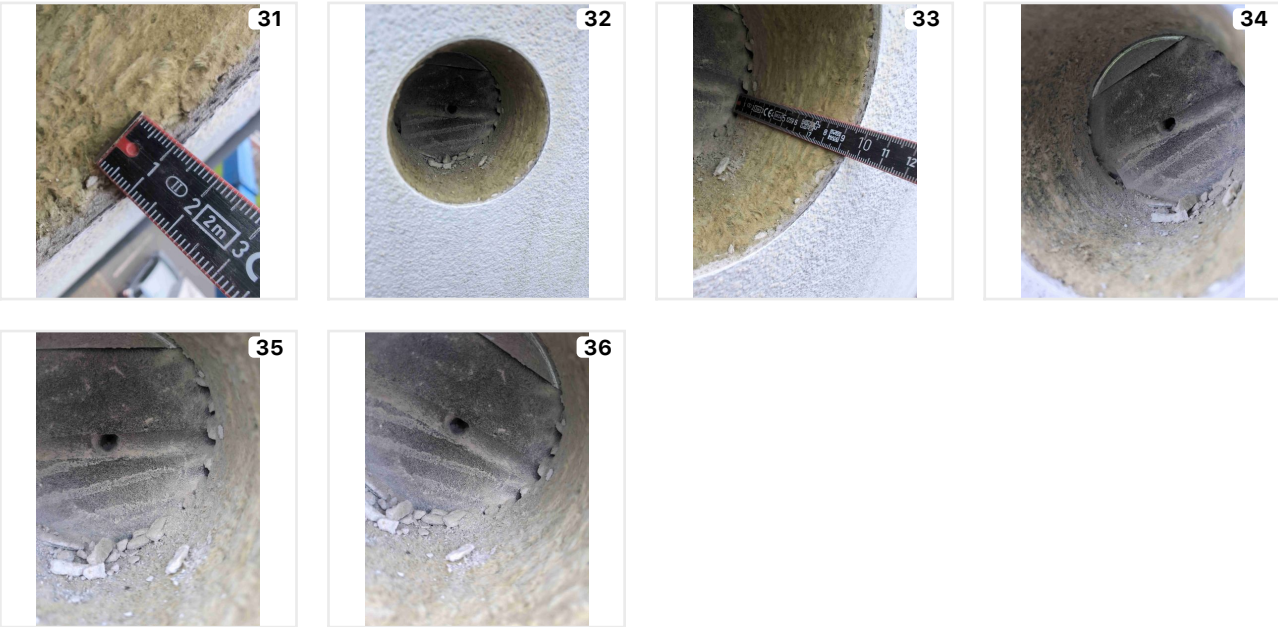
Cavity Barriers

1 Cavity Barrier	Material	Photo Ref.
Horizontal Cavity Barrier	Solid State Mineral Wool	

Floor Slab

Reinforced concrete

Build-up Photos



Inspection: 392KIE



Elevation • Location

NORTH • BELOW WINDOW - VERTICAL AND HORIZONTAL JUNCTION
WITH RENDER/PANEL SYSTEM

Name/Summary

WINDOW SPANDRELS - NORTH ELEVATION

Proposed Inspection

Panel Inspection options

1. Remove panel if possible or conduct a core hole removal of external surface material

Assess material making up the wall type

Reinstate to a weathertight condition

2. If panel cannot be removed. Cut a 250mm core hole

Assess material making up the wall type

Reinstate to a weathertight condition

3. If access is restricted externally-From internal-

Cut out 200mm x 200mm inspection panel through internal plaster / plasterboard to expose construction behind.

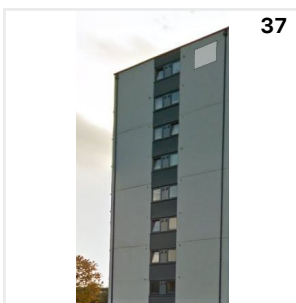
Inspect the construction, cavity, insulation and junction with compartment floor slab, compartment wall and window opening

Replace any insulation removed with new

Replace plasterboard with existing / new as required fixing to a timber batten

Redecoration by the Building Management

Inspection Photos



Attachments & Balconies

Photo

Attachment



Cantilever Balcony (UEK477)

Configuration: Stacked, Single Unit

Size: Private balcony spanning only a single compartment

Attachment: Cantilever Balcony

Attachment Reference
UEK477

Details

Configuration

Stacked, Single Unit

Size

Private balcony spanning only a single compartment

Framework/Structure

Reinforced concrete framework extension of the floor slab

Handrail

Timber handrail

Balustrade

Steel balusters with Trespa HPL (Class B) panels to balconies.

Details

Trespa HPL panels to balconies. Fire classification B-s1, d0.

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.

Fire Engineer Comments

Trespa Class B HPL Balustrade panels

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).

Neutral

The classification B-s1, d0 fire performance has a positive impact to the HPL(usually by additive of chemical fire retardant). The refurbishment date is not known and the product would not be compliant if the building was refurbished in current times.

Considering the material, the location and relationship with the building wall systems as a whole, the risk of this product is tolerable and no action is required.

Photos



38



18



39

External Windows

Photo

External Window



Top, Mid, Side Hung Casements (NQ8M5D)

External Window: Top, Mid, Side Hung Casements

External Window Reference
NQ8M5D

Details

Surface Material

Aluminium

Frame Material

Aluminium

Infill / Panel Material

Toughened Glass

Fire Engineer Comments

Windows are A1 aluminium framework, aluminium is a soft metal that has a low melting point. As such this material is able to perform in temperatures between 400°C and 600°C, after which the metal will start to melt. Although it will not combust it will form molten droplets which may fall and ignite combustible materials below to cause secondary fires.

Within the aluminium framework is an infill of glazing. The glazing has been identified as thermal glazing for its strength and ability to comply with Approved Document K. As such the glass is able with stand temperature differentials up to 200°C (plus ambient).

This means that there is a lower risk to thermal fracturing and will aid in preventing fire penetration through the external wall internally; and as such would allow the occupants to turn their back on fire to escape from the effects of the fires effluents. Furthermore, these systems are mechanically secured into the building and will afford a period of mechanical support.

The position of some of these systems within the buildings envelope are in areas of communal means of escape and should legally be kept sterile at all times as to present a lower risk to ignition.

Considering the material, the location and relationship with the building wall systems as a whole, the risk of this product is tolerable and no action is required.

Neutral

Photos



External Doors

Photo

External Door



Single Leaf Entrance Doors (92DW4J)



Single Leaf Entrance Doors (WUSXBJ)

External Door: Single Leaf Entrance Doors

External Door Reference
92DW4J

Details

Surface Material

Timber

Frame Material

Timber

Infill / Panel Material

Georgian Wired Glass

Details

Communal notional FD30 doors

Fire Engineer Comments

Timber is a well understood material. Provided that it is of a substantial thickness, it is difficult to ignite with a small flame, but unless it is treated, it is likely to become involved in any substantial fire to which it is exposed, and ultimately to spread flame across all surfaces extending up and across from the point of ignition. Timber can be treated to improve its reaction to fire characteristics up to national Class 0 (European Class B) surface performance. However, it is important that the nature of the treatment is understood, as some treatments (e.g. those based on impregnation by mineral salt fire retardants) are hygroscopic and gradually leach out of the treated timber.

Considering the material, the location and relationship with the building wall systems as a whole, the risk of this product is tolerable and no action is required.

Neutral

Photos



External Door: Single Leaf Entrance Doors

External Door Reference
WUSXBJ

Details

Surface Material

Aluminium

Frame Material

Aluminium

Infill / Panel Material

Toughened Glass

Details

Building entrance door/Balcony doors

Fire Engineer Comments

Doors are A1 aluminium framework, aluminium is a soft metal that has a low melting point. As such this material is able to perform in temperatures between 400°C and 600°C, after which the metal will start to melt. Although it will not combust it will form molten droplets which may fall and ignite combustible materials below to cause secondary fires.

Within the aluminium framework is an infill of glazing. The glazing has been identified as thermal glazing for its strength and ability to comply with Approved Document K. As such the glass is able with stand temperature differentials up to 200°C (plus ambient).

This means that there is a lower risk to thermal fracturing and will aid in preventing fire penetration through the external wall internally; and as such would allow the occupants to turn their back on fire to escape from the effects of the fires effluents. Furthermore, these systems are mechanically secured into the building and will afford a period of mechanical support.

The position of some of these systems within the buildings envelope are in areas of communal means of escape and should legally be kept sterile at all times as to present a lower risk to ignition.

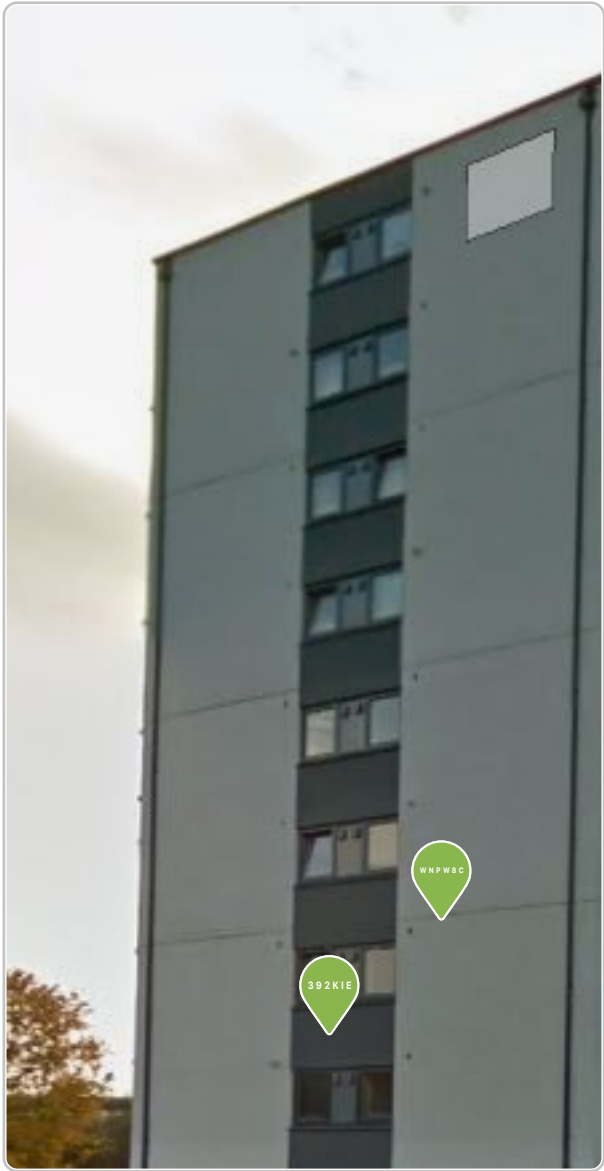
Considering the material, the location and relationship with the building wall systems as a whole, the risk of this product is tolerable and no action is required.

Neutral

Photos



Plan: NORTH



Plan: WEST 2



Photos



Photos Continued...



Photos Continued...



Photos Continued...





FIRNTEC
BUILDING COMPLIANCE