



FIRNTEC
BUILDING COMPLIANCE

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

Document Version 3
Survey Date 19/02/2025
Suggested Review Date 19/02/2030

FIRE RISK APPRAISAL EXTERNAL WALLS

HAMSTEAD HOUSE

Hamstead House
Coniston Crescent
Hamstead
West Midlands
B43 5NU



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Summary

Fire Risk Appraisal External Walls

Assessment and Certificate Reference

RB-EN38Y7

Assessed On, By

19/02/2025, Tom Barry CFPA-E Dip TC, TIFireE,
MIFSM, AMIFPO, CFRAR

Approved / Validated On, By

28/07/2025, James Major (Facade Manager)

Recommended Review Date

19/02/2030

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

Hamstead House

Property Reference

RB-CU2Z9Y

Address

Hamstead House
Coniston Crescent
Hamstead
West Midlands
B43 5NU

Assessing Organisation

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

Abbreviation/ Term Definition

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

Statement of Competency

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

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

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

We confirm that they have:

- a) Read and understood the commentary and provisions relating to the competence of external wall assessors set out in Section 8 and Annex H of PAS 9980:2022;
- b) Adequate and relevant competence to undertake the FRAEW;
- c) Sufficient knowledge, skills and experience in relation to fire safety of external walls to be able to complete an assessment at the level required;
- d) The relevant skill, knowledge, and experience to manage and interpret the results of intrusive inspections; and
- e) The competence to appraise and assess the nature of external wall construction in terms of fire performance and provide an opinion on the risk.
- f) No conflicts of interest of any kind, other than any which are disclosed in the report.
- g) The conclusions of the report are the author's independent assessment of the risks and remedial actions and have not been influenced in any way by the opinions or actions of others except where stated.

Terms of Reference

Particulars

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

Limitations

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

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

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

The FRAEW report is to be reviewed:

- a) if significant changes/repairs have been made to the external wall; and/or
- b) in the event of a fire incident, if the fire involved the external wall construction; and/or
- c) if there are any circumstances, depending upon the nature of the construction, the extent of available knowledge in relation to the particular materials, components and systems used on the building or the degree of uncertainty over the findings, which suggest review is appropriate. In these cases, the report will include a clear explanation as to why periodic review is necessary and include a suggested review date."

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

Assumptions

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

- a) the extent of sampling carried out.
- b) the accuracy of information upon which it has been necessary to rely, especially where it has not been possible to verify the information 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
Fire Risk Assessment (24/04/2024) Sandwell Metropolitan Borough Council. Fire Risk Assessment.	Received

Executive Summary

External Wall Systems and Attachments on the Building

7 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.

5 Items	Effect	Risk
Wall Construction Brickwork (I5D31C)	Neutral	Medium
Wall Construction Alumasc insulated mineral wool render. (7HJWQK)	Positive	Low
Wall Construction Marley Eternit fibre cement boards (QECBPY)	Positive	Low
Attachment Inset Balcony (1SWSKD)	Positive	Low
External Window Top, Mid, Side Hung Casements (ZIN1KB)	Neutral	Medium

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 **5ZHJP** which includes wall construction **I5D3IC**.

Conclusion: The external surface is a masonry brickwork. This 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 brickwork is a cavity ahead of the insulating layer. The thermal insulation was identified to be PIR (Polyisocyanurate), this is viewed as presenting a medium risk to the contribution to fire spread. This means this product is able to self-sustain without the presence of an external heat source.

The heat from the flame causes the PIR insulation to undergo pyrolysis, which results in the black char that is formed on the surface of the board. This char layer creates a barrier inhibiting the oxygen from diffusing into the foam and may lead to self-extinguishment after a short period.

However, it should be noted that the final fire performance of plastic foams such as PIR strongly depends on the chemical composition and manufacturing process. e.g., content of isocyanate linkages and type of isocyanate-reactive component for PIR.

The insulation was not mechanically secured to the inner leaf block substrate. The inner leaf blockwork presents the same fire behaviour as the outer leaf.

Due to the external wall construction (double skin masonry), cavity barriers are not required in line with compartment walls and floors. Around aperture openings, no dedicated cavity barriers were identified but the windows were viewed to close the cavity to assist in preventing the free flow of air within the cavity to aid in the pyrolysis of the combustible insulation.

As set out in PAS9980, 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

uPVC window frames appear to be installed within this wall type. Fire tests have shown that UPVC materials, being naturally flame retardant throughout their product life, will not cause, support or enhance the development of accidental fire and are in fact self-extinguishing. Polyvinyl Chloride (PVC) possess excellent fire performance properties although are classified as Euroclass E rating. The PVC typically has 56.8% chlorine as its base polymer which offers good fire performance properties. PVC has an oxygen index of 22 so when ignited and reaches an oxygen index of 21 it is self-extinguishing when not subjected to continued heat or flame. Such as the exterior surface of the building when we take into consideration wind and other environmental factors. It is accepted that the existing material is not a recognised material in terms of closing of a cavity, however, will provide a degree of separation between the aperture and cavity.

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.

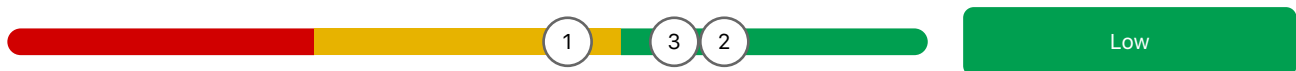
It is accepted that the brickwork wall type begins at ground floor level and extends to the full height of the property, however, the construction provided is non-combustible and construction is provided to ensure car parking and/or external ignition sources are suitably separated from the external wall construction.

The majority of the fire safety features provided to the block are in line with expectations for a general needs block of this size. The property operates a stay put policy and the existing fire safety provisions within the block would appear to support that.

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 there is no requirement for remediation within this wall type.



Risk Factor Analysis 2

This analysis looks at façade configuration **L29V2X** which includes wall construction **7HJWQK**.

Conclusion: The external wall is constructed of non-combustible materials installed directly onto a non-combustible substrate. 95mm of mineral wool insulation is provided and mechanically fixed to the blockwork substrate.

The outer leaf has a reaction to fire classification A2: non combustible - the system installed is an Alumasc insulated mineral wool render. The risk presented is not considered to be low as the main components within the wall make up will not support combustion. This is noted to have a positive impact in accordance with PAS 9980:2022.

Masonry 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, masonry 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.

This system was identified at ground level and could be susceptible to any accidental or malicious ignition but given the external wall types external surface materials being of non-combustible nature, in the event of any ignition to the system the rate of any spread would be tolerable.

All materials installed as part of this wall system appear to be non-combustible, therefore pose minimal risk in terms of external fire spread.

uPVC window frames appear to be installed within this wall type. Fire tests have shown that UPVC materials, being naturally flame retardant throughout their product life, will not cause, support or enhance the development of accidental fire and are in fact self-extinguishing. Polyvinyl Chloride (PVC) possess excellent fire performance properties although are classified as Euroclass E rating. The PVC typically has 56.8% chlorine as its base polymer which offers good fire performance properties. PVC has an oxygen index of 22 so when ignited and reaches an oxygen index of 21 it is self-extinguishing when not subjected to continued heat or flame. Such as the exterior surface of the building when we take into consideration wind and other environmental factors. It is accepted that the existing material is not a recognised material in terms of closing of a cavity, however, will provide a degree of separation between the aperture and cavity.

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.

The majority of the fire safety features provided to the block are in line with expectations for a general needs block of this size. The property operates a stay put policy and the existing fire safety provisions within the block would appear to support that.

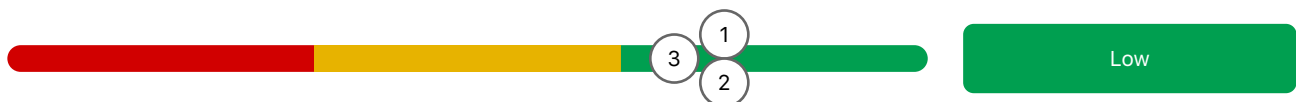
The risk presented at this property, as a result of the external wall configuration is low. All materials installed as part of the external wall system are non-combustible; there, the likelihood of external fire spread is sufficiently low.

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.

Therefore it is our professional opinion that there is no requirement for remediation for this external wall type.



Risk Factor Analysis 3

This analysis looks at façade configuration **JQ1KZQ** which includes wall construction **QECBPY**.

Conclusion: Marley Eternit fibre cement boards have been mechanically fixed to steel brackets which, in turn, are fixed to concrete parapet wall. Marley Eternity fibre cement boards achieve a fire classification of Class A2 when tested in accordance with BS EN 13501-1.

All balconies are concrete upstand parapet walls and are all covered with cement board in 2 colours. The concrete parapet sits on the slab edge. The cladding system has been mechanically fixed, which is seen to have a positive impact in accordance with the recommendations of PAS 9980:2022.

All materials installed as part of this wall system appear to be non-combustible, therefore posing minimal risk in terms of external fire spread.

The majority of the fire safety features provided to the block are in line with expectations for a general needs block of this size. The property operates a stay put policy and the existing fire safety provisions within the block would appear to support that.

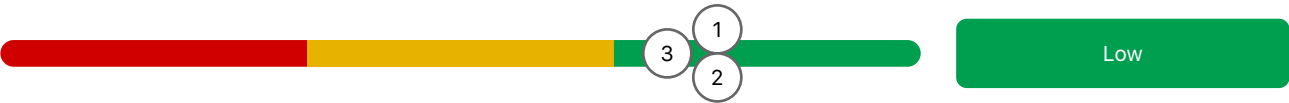
The risk presented at this property, as a result of the external wall configuration is low. All materials installed as part of the external wall system are non-combustible; there, the likelihood of external fire spread is sufficiently low.

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.

Therefore it is our professional opinion that there is no requirement for remediation for this external wall type.



Overall Building Risk Rating



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

Indicative EWS1 Rating

This building is predicted to receive an EWS1 Rating of **A2** based on an EWS1 Assessment. However, this is only indicative and cannot be classed as an EWS1 Rating.

Category A ratings apply to buildings where the external wall system does not contain significant amounts of combustible materials. There is a minimal amount of combustible materials in the external wall system, but the risk is sufficiently low that no remedial works are required.

A2

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

Access to more than one staircase for escape

Positive

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

Suppression system is provided within the bin chute.

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

As per the FRA provided by the client - No firefighting lifts/shafts.
Passenger lifts do serve adjacent floors.

Fire Service Intervention

Event	Seconds	Minutes & Seconds
Initiation to fire detection	120 Seconds	2 Minutes
Actuation Of Fire Detector To Transmission Of Alarm	10 Seconds	10 Seconds
Processing By Central Monitoring Station	60 Seconds	1 Minute
Receipt of call by fire service mobilising control	10 Seconds	10 Seconds
Transmission To Fire Station And Response	60 Seconds	1 Minute
Travelling Time Of Fire Service	600 Seconds	10 Minutes
Arrival Protocol And Entry Preparation Time	180 Seconds	3 Minutes
Firefighting Travel In Firefighting Lift	0 Seconds	—
Firefighter travel to operational bridgehead	360 Seconds	6 Minutes
Firefighter Travel Walking Up Two Flights Of Stairs To Fire Floor (75 Seconds)	75 Seconds	1 Minute 15 Seconds
Total Time	1,475 Seconds	24 Minutes 35 Seconds

Nearest Fire Station

Perry Barr Fire Station, 3.4 miles, approx 10 minute travel time under normal traffic conditions

Wall Constructions

Wall Construction	Build-up
Brickwork (I5D3IC)	• Outer leaf • Cavity • Insulation (PIR Insulation) • Inner Leaf (Blockwork)
Alumasc insulated mineral wool render. (7HJWQK)	• External Surface Material (Render) • Insulation (Mineral Wool Insulation) • Inner Leaf (Reinforced concrete)
Marley Eternit fibre cement boards (QECBPY)	• External Surface Material (Cement board) • Cavity • Inner Leaf (Reinforced concrete finished with ceramic tiles)

Wall Construction: Brickwork

Construction Reference
I5D3IC

This wall construction was identified by wall inspections EAQZI5, YF5545, and USMYCL. The build-up, cavity barrier, and floor slab information is taken directly from inspection EAQZI5. See the Inspections section of this report for full inspection details.

Construction	Effect	Risk
Brickwork (I5D3IC)	Neutral	Medium

Build-Up

4 Elements	Thickness/Depth	Material	Rating (BS EN13501)
Outer leaf	100mm		A1 - Non-Combustible
Brick			
Cavity	120mm		
Insulation	50mm	PIR Insulation	C - Combustible
Inner Leaf	100mm	Blockwork	A1 - Non-Combustible

Cavity Barriers

None

Floor Slab

Reinforced concrete

Fire Performance

K.1 General

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

Neutral

K.2 External Surfaces

Class A1/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

Thermoset polymeric foams that form a stable char on fire exposure, e.g. some PIR foams

Neutral

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

Neutral

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. Therefore, a BR135 benchmark would be applicable for this external wall type

Wall Construction: Alumasc insulated mineral wool render.

Construction Reference
7HJWQK

This wall construction was identified by wall inspections XHBA1E and DJ9KT3. The build-up, cavity barrier, and floor slab information is taken directly from inspection XHBA1E. See the Inspections section of this report for full inspection details.

Construction	Effect	Risk
Alumasc insulated mineral wool render. (7HJWQK)	Positive	Low

Build-Up

3 Elements	Thickness/Depth	Material	Rating (BS EN13501)
External Surface Material	8mm	Render	A1 - Non-Combustible
Render on rockwool			
Insulation	95mm	Mineral Wool Insulation Material Brand: Rockwool	A1 - Non-Combustible
Render on rockwool then at slab level No gap behind rockwool			
Inner Leaf		Reinforced concrete	A1 - Non-Combustible

Cavity Barriers

1 Cavity Barrier	Material
Horizontal Cavity Barrier	Mineral Wool

Floor Slab

Floor Slab Abuts The Backing Wall

Fire Performance

K.1 General

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

Positive

K.2 External Surfaces

Class A1/A2

Positive

K.3 Facings/Cladding Panels

Low HRR

Positive

Adhesive fixed

Negative

K.4 Panel Construction

Not Applicable

K.5 Cavities

Facings into the cavity at least Class A2

Positive

K.6 Insulation

Mineral/glass insulation

Positive

K.7 Substrate

Masonry, >75 mm thick

Positive

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

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

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. Therefore, a BR135 benchmark would be applicable for this external wall type

Wall Construction: Marley Eternit fibre cement boards

Construction Reference
QECBPY

This wall construction was identified by wall inspection 4UWETN. The build-up, cavity barrier, and floor slab information is taken directly from inspection 4UWETN. See the Inspections section of this report for full inspection details.

Construction	Effect	Risk
Marley Eternit fibre cement boards (QECBPY)	Positive	Low

Build-Up

3 Elements	Thickness/Depth	Material	Rating (BS EN13501)
External Surface Material	10mm	Cement board	A1 - Non-Combustible
Cement board fixed to steel brackets what are fixed to concrete parapet wall			
Cavity			
Inner Leaf		Reinforced concrete finished with ceramic tiles	A1 - Non-Combustible

Cavity Barriers

None

Fire Performance

K.1 General

Materials with a calorific value (gross heat of combustion) of ≤ 3 MJ/kg	Positive
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K.2 External Surfaces

Class A1

Positive

K.3 Facings/Cladding Panels

Mechanically fixed

Positive

Low HRR

Positive

K.4 Panel Construction

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

Neutral

K.5 Cavities

Facings into the cavity at least Class A2

Positive

K.6 Insulation

No 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

Neutral

PAS Standard Benchmark

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 not find a cladding system with the configuration and components that would constitute an exact match to what our inspections found on the Property. Therefore, a BR135 benchmark would not be applicable for this external wall type

Façade Configuration: 5ZHJRP

Items in Façade

3 Items	Effect	Risk
Wall Construction Brickwork (I5D3IC)	Neutral	Medium
Attachment Inset Balcony (1SWSKD)	Positive	Low
External Window Top, Mid, Side Hung Casements (ZIN1KB)	Neutral	Medium

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
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N.3 Extent of Cladding

Entire façade covered	Negative
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N.4 Cavities & Openings

Continuous vertically running cavity with cavity barriers or fire stops as appropriate	Positive
--	----------

N.5 Infill / Spandrel Panels

Not Applicable

N.6 Setbacks - Combustible Cladding Setback from Wall Edge

Not Applicable

N.7 Overhangs & Projections

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

Positive

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

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

Neutral

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

Where vents pass through a cavity, either:

- the cavity does not include combustible materials; or
- the cavity is faced on either side by brick or concrete at least 75 mm thick and any combustible insulation in the cavity is not thermoplastic

Neutral

Risk Factor Analysis

Conclusion: The external surface is a masonry brickwork. This 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 brickwork is a cavity ahead of the insulating layer. The thermal insulation was identified to be PIR (Polyisocyanurate), this is viewed as presenting a medium risk to the contribution to fire spread. This means this product is able to self-sustain without the presence of an external heat source.

The heat from the flame causes the PIR insulation to undergo pyrolysis, which results in the black char that is formed on the surface of the board. This char layer creates a barrier inhibiting the oxygen from diffusing into the foam and may lead to self-extinguishment after a short period.

However, it should be noted that the final fire performance of plastic foams such as PIR strongly depends on the chemical composition and manufacturing process. e.g., content of isocyanate linkages and type of isocyanate-reactive component for PIR.

The insulation was not mechanically secured to the inner leaf block substrate. The inner leaf blockwork presents the same fire behaviour as the outer leaf.

Due to the external wall construction (double skin masonry), cavity barriers are not required in line with compartment walls and floors. Around aperture openings, no dedicated cavity barriers were identified but the windows were viewed to close the cavity to assist in preventing the free flow of air within the cavity to aid in the pyrolysis of the combustible insulation.

As set out in PAS9980, 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

uPVC window frames appear to be installed within this wall type. Fire tests have shown that UPVC materials, being naturally flame retardant throughout their product life, will not cause, support or enhance the development of accidental fire and are in fact self-extinguishing. Polyvinyl Chloride (PVC) possess excellent fire performance properties although are classified as Euroclass E rating. The PVC typically has 56.8% chlorine as its base polymer which offers good fire performance properties. PVC has an oxygen index of 22 so when ignited and reaches an oxygen index of 21 it is self-extinguishing when not subjected to continued heat or flame. Such as the exterior surface of the building when we take into consideration wind and other environmental factors. It is accepted that the existing material is not a recognised material in terms of closing of a cavity, however, will provide a degree of separation between the aperture and cavity.

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.

It is accepted that the brickwork wall type begins at ground floor level and extends to the full height of the property, however, the construction provided is non-combustible and construction is provided to ensure car parking and/or external ignition sources are suitably separated from the external wall construction.

The majority of the fire safety features provided to the block are in line with expectations for a general needs block of this size. The property operates a stay put policy and the existing fire safety provisions within the block would appear to support that.

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 there is no requirement for remediation within this wall type.



Façade Configuration: L29V2X

Items in Façade

3 Items

	Effect	Risk
Wall Construction Alumasc insulated mineral wool render. (7HJWQK)	Positive	Low
Attachment Inset Balcony (1SWSKD)	Positive	Low
External Window Top, Mid, Side Hung Casements (ZIN1KB)	Neutral	Medium

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 such as to delay fire spread over the external walls

Positive

N.4 Cavities & Openings

Continuous vertically running cavity with cavity barriers or fire stops as appropriate

Positive

N.5 Infill / Spandrel Panels

Not Applicable

N.6 Setbacks - Combustible Cladding Setback from Wall Edge

Not Applicable

N.7 Overhangs & Projections

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

Positive

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

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

Neutral

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

Where vents pass through a cavity, either:

- 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

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

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)

Positive

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

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

NOTE The potential for sufficiently high levels of radiant heat flux from unprotected openings in a neighbouring building could also be a negative risk factor, although it is recognized that there will be difficulties in determining this, given the need for information relating to the neighbouring building.

Neutral

Risk Factor Analysis

Conclusion: The external wall is constructed of non-combustible materials installed directly onto a non-combustible substrate. 95mm of mineral wool insulation is provided and mechanically fixed to the blockwork substrate.

The outer leaf has a reaction to fire classification A2: non combustible - the system installed is an Alumasac insulated mineral wool render. The risk presented is not considered to be low as the main components within the wall make up will not support combustion. This is noted to have a positive impact in accordance with PAS 9980:2022.

Masonry 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, masonry 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.

This system was identified at ground level and could be susceptible to any accidental or malicious ignition but given the external wall types external surface materials being of non-combustible nature, in the event of any ignition to the system the rate of any spread would be tolerable.

All materials installed as part of this wall system appear to be non-combustible, therefore pose minimal risk in terms of external fire spread.

uPVC window frames appear to be installed within this wall type. Fire tests have shown that UPVC materials, being naturally flame retardant throughout their product life, will not cause, support or enhance the development of accidental fire and are in fact self-extinguishing. Polyvinyl Chloride (PVC) possess excellent fire performance properties although are classified as Euroclass E rating. The PVC typically has 56.8% chlorine as its base polymer which offers good fire performance properties. PVC has an oxygen index of 22 so when ignited and reaches an oxygen index of 21 it is self-extinguishing when not subjected to continued heat or flame. Such as the exterior surface of the building when we take into consideration wind and other environmental factors. It is accepted that the existing material is not a recognised material in terms of closing of a cavity, however, will provide a degree of separation between the aperture and cavity.

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.

The majority of the fire safety features provided to the block are in line with expectations for a general needs block of this size. The property operates a stay put policy and the existing fire safety provisions within the block would appear to support that.

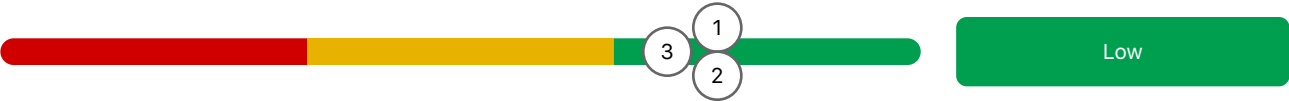
The risk presented at this property, as a result of the external wall configuration is low. All materials installed as part of the external wall system are non-combustible; there, the likelihood of external fire spread is sufficiently low.

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.

Therefore it is our professional opinion that there is no requirement for remediation for this external wall type.



Façade Configuration: JQ1KZQ

Items in Façade

3 Items

	Effect	Risk
Wall Construction Marley Eternit fibre cement boards (QECBPY)	Positive	Low
Attachment Inset Balcony (1SWSKD)	Positive	Low
External Window Top, Mid, Side Hung Casements (ZIN1KB)	Neutral	Medium

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

Cavity not continuous, due to façade being only partially clad or broken by building features:

- projecting floor slabs that divide part of the wall and isolate sections of cavity from each other; and
- walls that project out or are set back, such as to limit the vertical extent of cavities)

Positive

N.5 Infill / Spandrel Panels

Not Applicable

N.6 Setbacks - Combustible Cladding Setback from Wall Edge

Not Applicable

N.7 Overhangs & Projections

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

Positive

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

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

Neutral

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

Where vents pass through a cavity, either:

- the cavity does not include combustible materials; or
- the cavity is faced on either side by brick or concrete at least 75 mm thick and any combustible insulation in the cavity is not thermoplastic

Positive

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

Neutral

N.11 Attachments

Non-combustible balconies.

Positive

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: Marley Eternit fibre cement boards have been mechanically fixed to steel brackets which, in turn, are fixed to concrete parapet wall. Marley Eternity fibre cement boards achieve a fire classification of Class A2 when tested in accordance with BS EN 13501-1.

All balconies are concrete upstand parapet walls and are all covered with cement board in 2 colours. The concrete parapet sits on the slab edge. The cladding system has been mechanically fixed, which is seen to have a positive impact in accordance with the recommendations of PAS 9980:2022.

All materials installed as part of this wall system appear to be non-combustible, therefore posing minimal risk in terms of external fire spread.

The majority of the fire safety features provided to the block are in line with expectations for a general needs block of this size. The property operates a stay put policy and the existing fire safety provisions within the block would appear to support that.

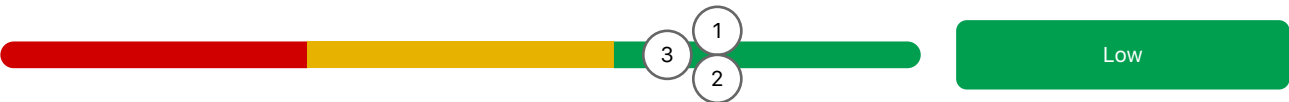
The risk presented at this property, as a result of the external wall configuration is low. All materials installed as part of the external wall system are non-combustible; there, the likelihood of external fire spread is sufficiently low.

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.

Therefore it is our professional opinion that there is no requirement for remediation for this external wall type.



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 and as per the building's FRA, 'The status panel is on the left-hand wall in the entrance lobby.'

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

Smoke Control

Natural smoke control

Smoke Control

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

Suppression Systems

Partial sprinkler system installed (Detailed in Description)

Suppression System

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

Public fire hydrant are available. As per the building's FRA - Fire hydrant is located at the rear entry/exit to the building within approximately 2m of the door.

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

1961

Guidance Applicable At Time Of Construction

Model Byelaws 1953

Building Height

Overall Building Height Approximately 33m
Highest Occupied Floor Level 30m
(calculated at 3m per floor as per PAS 9980-2022 section 3.1.22)

Number of Storeys (Ground and above)

11

Number of Flats

84

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

Exterior Cladding

FRAEW Completed on Exterior Cladding

Exterior Cladding (Details)

Marley (fibre cement) board to balconies (A2), Alumasc Insulated Rockwool render (A2)- brick

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

168

Residents (Extended)

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

Visitors

Day

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

2

Number Of Final Exits

4

External Means Of Escape

None Present

Types Of Lifts Installed

Passenger + Fireman's Control

Evacuation Chairs Installed

No

Stairwells Protected / Lobbied

Yes

Flat Doors Open Onto Stairs

No

Current Evacuation Strategy

Stay Put

Current Evacuation Strategy for the property considered appropriate?

Yes

Description

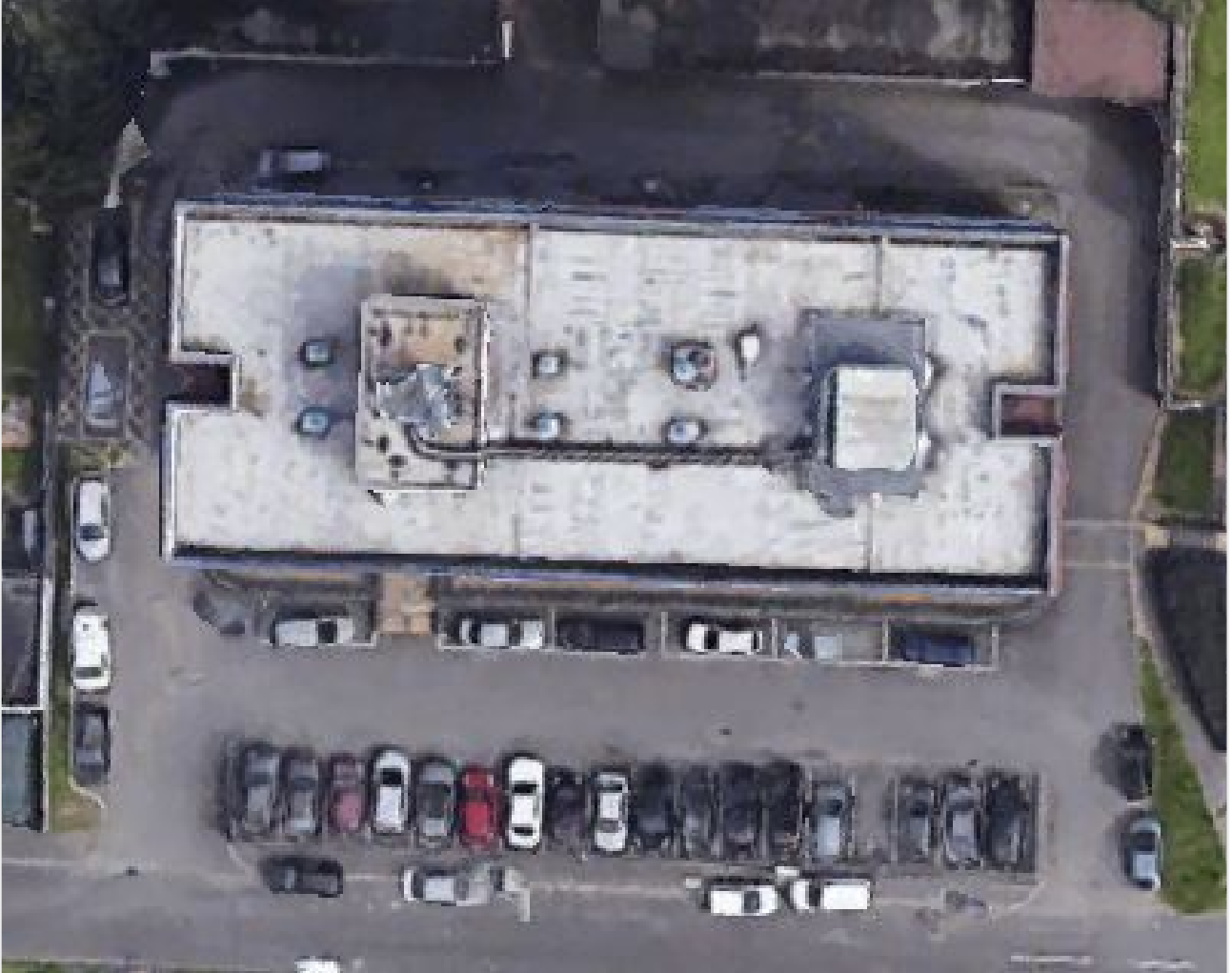
The premises is purpose-built with an adequate standard of compartmentation. The current Stay Put evacuation strategy is considered appropriate.

What is the recommended evacuation strategy for the property?

Stay Put

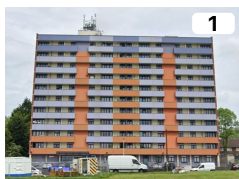
Aerial Perspective: Hamstead House

Aerial Perspective (picture sourced from Google Earth)



Elevations

Photo	Name	No. of Storeys
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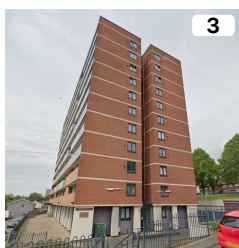
South Elevation

11 Storeys



West Elevation

11 Storeys



East Elevation

11 Storeys



North Elevation

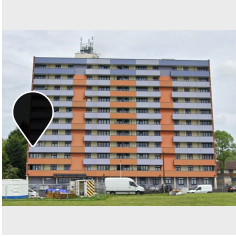
11 Storeys

Inspections

Elevation Location

Inspection

Elements

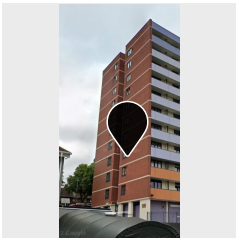


Inspection: 4UWETN

South Elevation

Accessible wall/Parapet/balcony cladding

- External Surface Material (Cement board)
- Cavity
- Inner Leaf (Reinforced concrete finished with ceramic tiles)

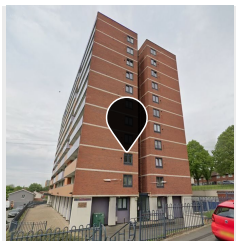


Inspection: EAQZI5

West Elevation

Window Aperture

- Outer leaf
- Cavity
- Insulation (PIR Insulation)
- Inner Leaf (Blockwork)

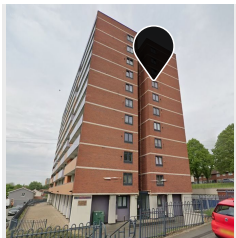


Inspection: YF5545

East Elevation

Compartment Floor & Window Aperture

- External Surface Material (Brickwork)
- Cavity
- Insulation (PIR Insulation)
- Inner Leaf (Blockwork)

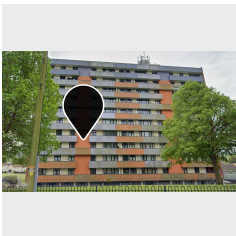


Inspection: USMYCL

East Elevation

Compartment Floor & Window Aperture

- External Surface Material (Brickwork)
- Cavity
- Insulation (PIR Insulation)
- Inner Leaf (Blockwork)

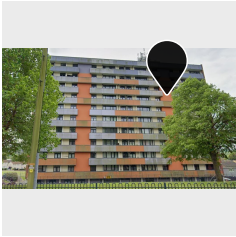
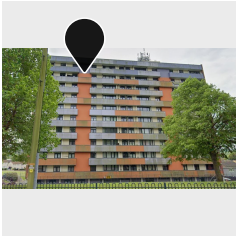


Inspection: 6G99NL

North Elevation

Compartment Floor & Vertical Junction

- External Surface Material (Render)
- Insulation (Mineral Wool Insulation)
- Cavity
- Inner Leaf (Reinforced concrete)

Elevation Location	Inspection	Elements
	Inspection: DJ9KT3 North Elevation Compartment Floor & Vertical Junction	• External Surface Material (Render) • Insulation (Mineral Wool Insulation) • Inner Leaf (Reinforced concrete)
	Inspection: XHBA1E North Elevation Compartment Floor & Vertical Junction	• External Surface Material (Render) • Insulation (Mineral Wool Insulation) • Inner Leaf (Reinforced concrete)

Inspection: 4UWETN

Elevation • Location
South Elevation • Accessible wall/Parapet/balcony cladding



Name/Summary

Sample Area 1

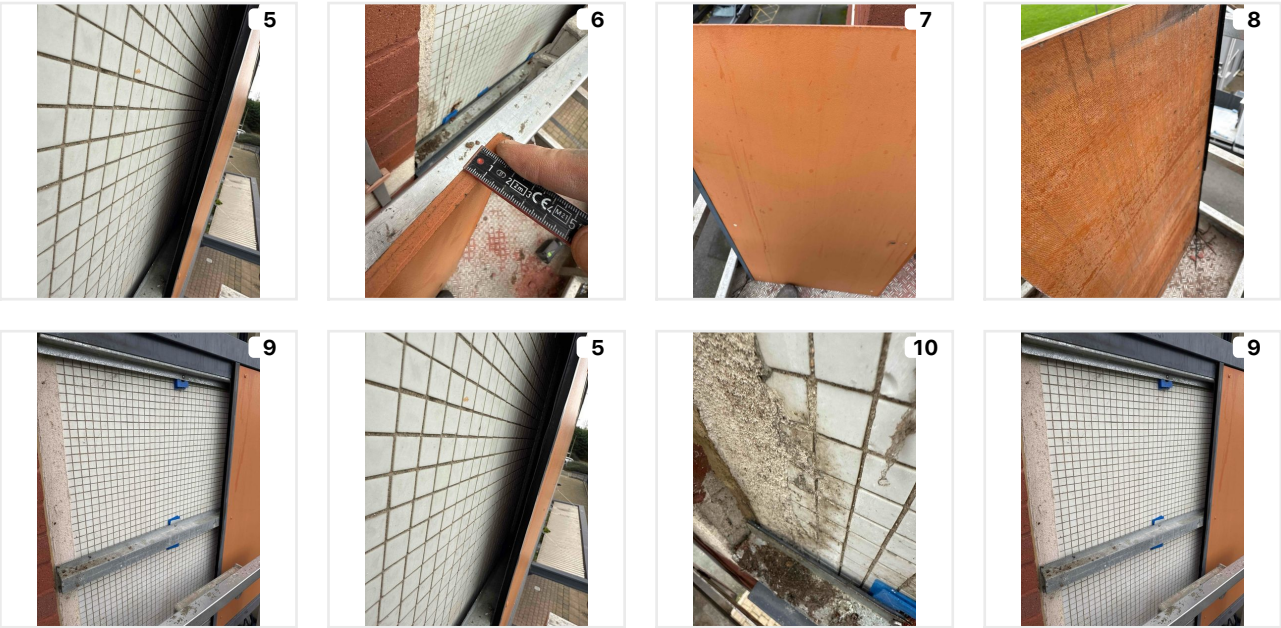
Description

Balcony is concrete and over clad
Cement board fixed to steel brackets what are fixed to concrete parapet wall
All balconies are concrete up stand parapet wall and all covered with cement board in 2 colours
Concrete parapet is sat on slab edge

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
External Surface Material	10mm	Cement board	5, 6, 7, 8, 9	A1 - Non-Combustible
Cement board fixed to steel brackets what are fixed to concrete parapet wall				
Cavity			5	
Inner Leaf		Reinforced concrete finished with ceramic tiles	10, 9	A1 - Non-Combustible

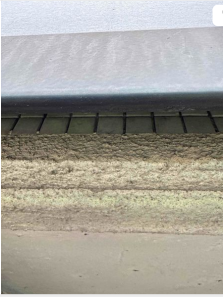
Build-up Photos



Inspection Photos



17



Inspection: EAQZI5

Elevation • Location
West Elevation • Window Aperture



Name/Summary

Sample Area 2

Description

Plastic cavity closer to window jam at bottom expanding foam in corner joint

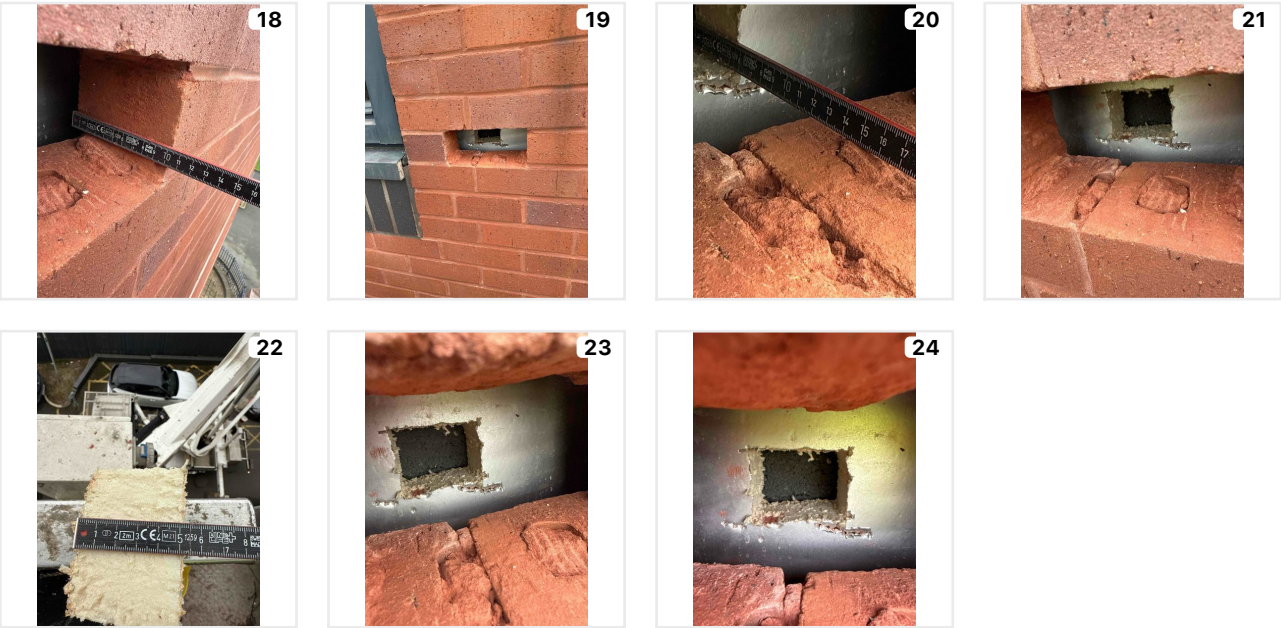
Build-Up

4 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Outer leaf	100mm		18, 19	A1 - Non-Combustible
Brick				
Cavity	120mm		20, 21	
Insulation	50mm	PIR Insulation	22, 23	C - Combustible
Inner Leaf	100mm	Blockwork	24	A1 - Non-Combustible

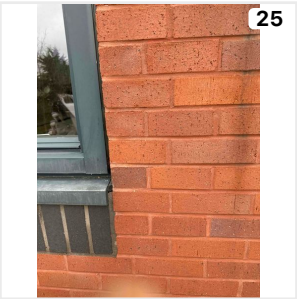
Floor Slab

Reinforced concrete

Build-up Photos



Inspection Photos



Inspection: YF5545

Elevation • Location
East Elevation • Compartment Floor & Window Aperture



Name/Summary

Sample Area 3

Description

Slab comes to front edge of brick
Plastic cavity closer around window

Build-Up

4 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
External Surface Material	100mm	Brickwork	26, 27	A1 - Non-Combustible
Brick				
Cavity	150mm		28, 29	
Insulation	50mm	PIR Insulation	30, 31	C - Combustible
50mm Pir				
Inner Leaf	100mm	Blockwork	32, 33	A1 - Non-Combustible

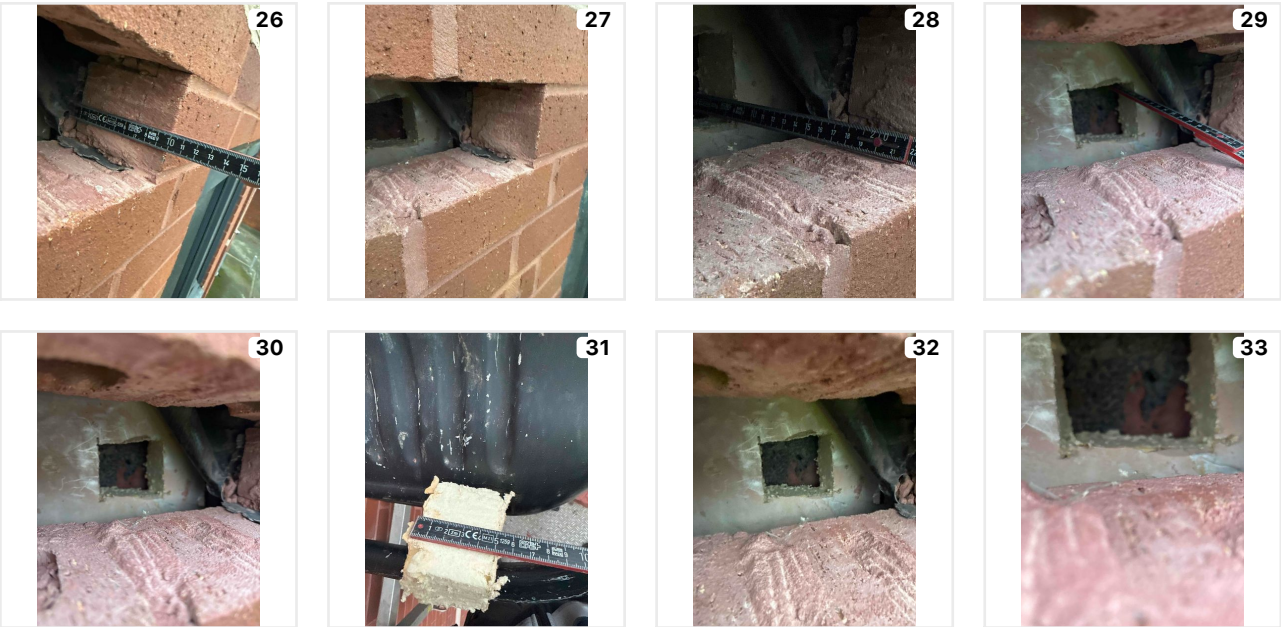
Cavity Barriers

1 Cavity Barrier	Material	Photo Ref.
Horizontal Cavity Barrier	Concrete	
Cavity closed horizontally by the concrete floor slab		

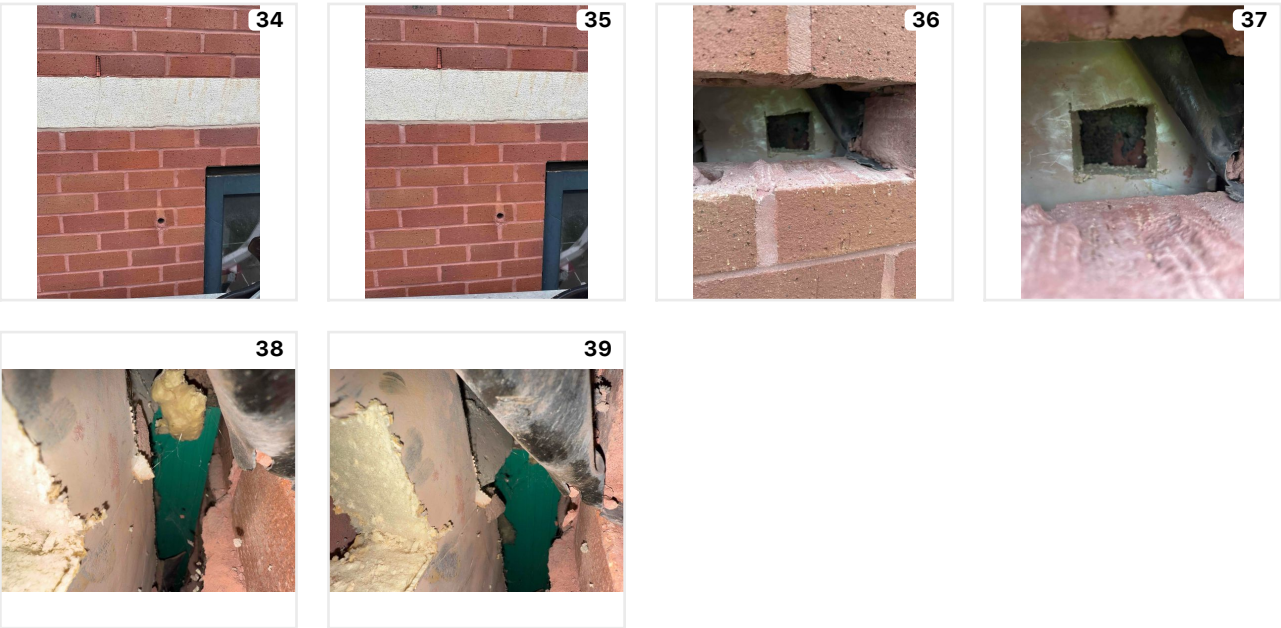
Floor Slab

Outside and backing walls sit on the floor slab

Build-up Photos



Inspection Photos



Inspection: USMYCL

Elevation • Location

East Elevation • Compartment Floor & Window Aperture



Name/Summary

Sample Area 4

Description

Slab comes to front edge of brick
Plastic cavity closer to window jam

Build-Up

4 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
External Surface Material	100mm	Brickwork	40, 41, 42	A1 - Non-Combustible
Brick				
Cavity	110mm		43, 44, 45	
Insulation	50mm	PIR Insulation	46, 47	C - Combustible
Inner Leaf	100mm	Blockwork	48	A1 - Non-Combustible

Cavity Barriers

1 Cavity Barrier	Material	Photo Ref.
Horizontal Cavity Barrier	Concrete	
Cavity closed horizontally by the concrete floor slab		

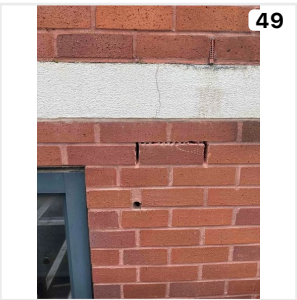
Floor Slab

Outside and backing walls sit on the floor slab

Build-up Photos



Inspection Photos



Inspection: 6G99NL

Elevation • Location
North Elevation • Compartment Floor & Vertical Junction



Name/Summary

Sample Area 5

Description

Moved pin up due to can't access due to machine to close
Concrete blade column over board with rockwool and render

Build-Up

4 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
External Surface Material	8mm	Render Material Brand: Sto	50, 51, 52, 53	A1 - Non-Combustible
Render on rockwool				
Insulation	95mm	Mineral Wool Insulation Material Brand: Rockwool	54, 55	A1 - Non-Combustible
Cavity	40mm		56	
Inner Leaf		Reinforced concrete	57, 58	A1 - Non-Combustible

Concrete blade column

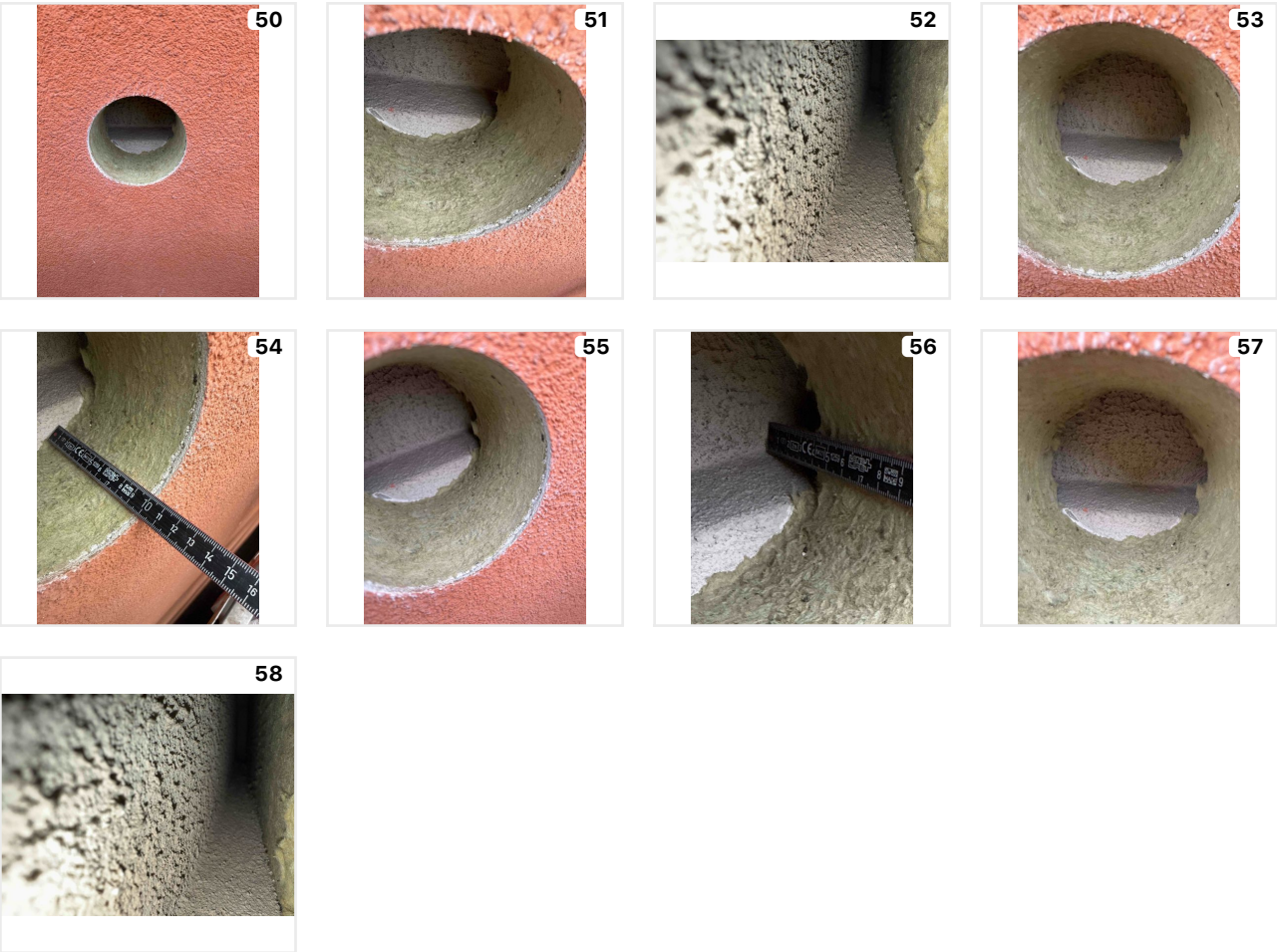
Cavity Barriers

No cavity barrier identified at this inspection location

Floor Slab

Backing Wall Sits On The Floor Slab

Build-up Photos

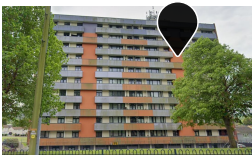


Inspection Photos



Inspection: DJ9KT3

Elevation • Location
North Elevation • Compartment Floor & Vertical Junction



Name/Summary

Sample Area 6

Description

Rockwool to slab and blade column

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
External Surface Material	8mm	Render	60, 61	A1 - Non-Combustible
Render on rockwool to slab				
Insulation	95mm	Mineral Wool Insulation Material Brand: Rockwool	62, 63, 64	A1 - Non-Combustible
Render to rockwool to slab no gap behind rockwool				
Inner Leaf		Reinforced concrete	63	A1 - Non-Combustible

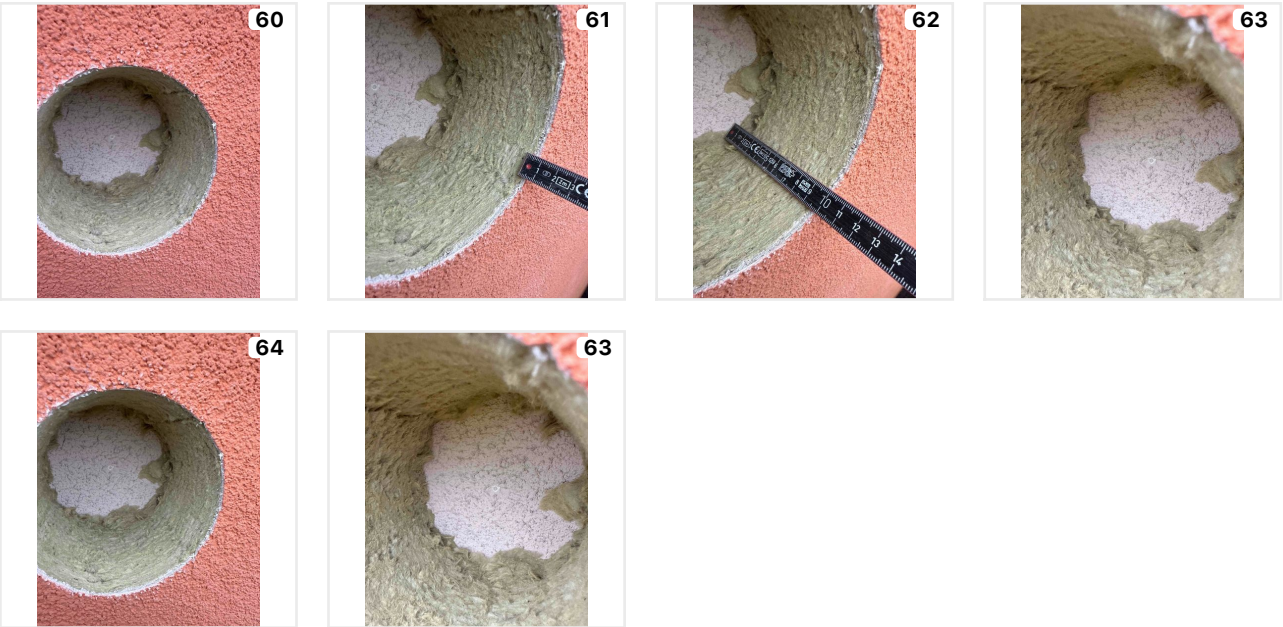
Cavity Barriers

No cavity barrier identified at this inspection location

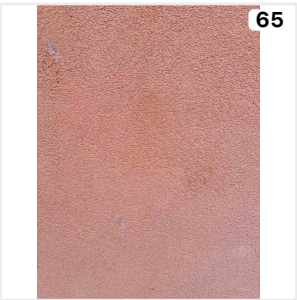
Floor Slab

Backing Wall Sits On The Floor Slab

Build-up Photos



Inspection Photos



Inspection: XHBA1E

Elevation • Location
North Elevation • Compartment Floor & Vertical Junction



Name/Summary

Sample Area 7

Proposed Inspection

- Cut out 200mm x 200mm inspection panel through the external surface material.
- Inspect the construction materials, any cavity/void, insulation, substrate and the presence of any cavity barriers/breaks at compartment junction.

Build-Up

3 Elements	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
External Surface Material	8mm	Render	66, 67	A1 - Non-Combustible
Render on rockwool				
Insulation	95mm	Mineral Wool Insulation Material Brand: Rockwool	68, 69, 70	A1 - Non-Combustible
Render on rockwool then at slab level No gap behind rockwool				
Inner Leaf		Reinforced concrete	63	A1 - Non-Combustible

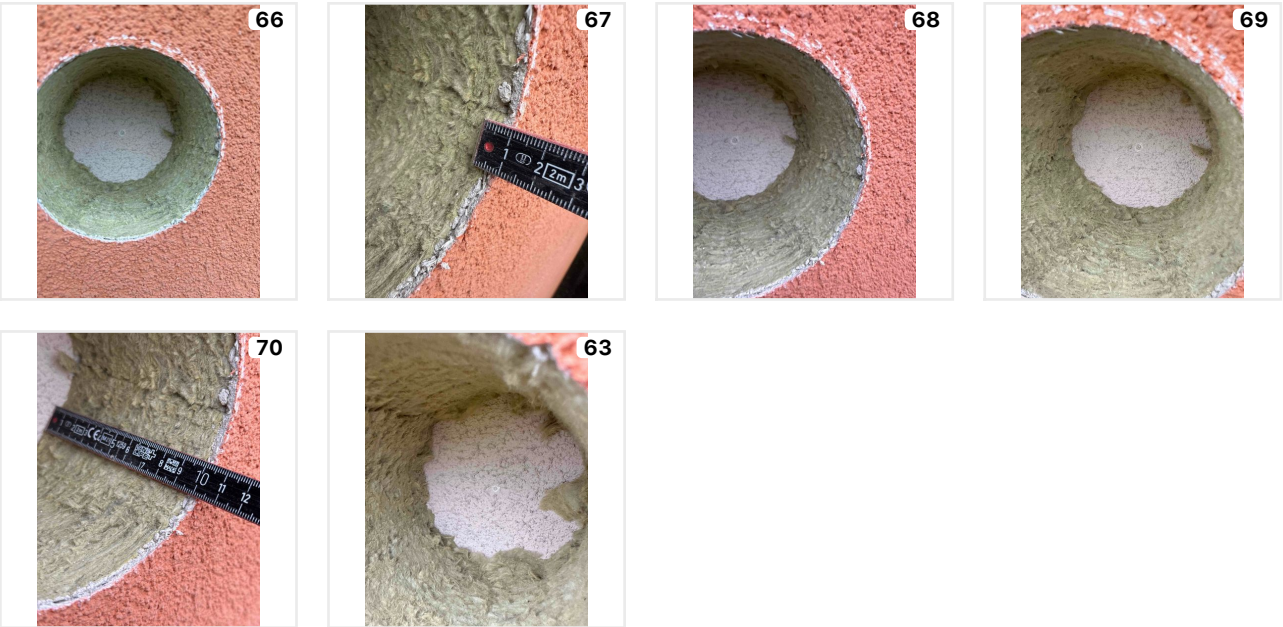
Cavity Barriers

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

Floor Slab

Floor Slab Abuts The Backing Wall

Build-up Photos



Inspection Photos



Attachments & Balconies

Photo

Attachment



Inset Balcony (1SWSKD)

Configuration: Inset

Size: Open deck which spans multiple compartments

Attachment: Inset Balcony

Attachment Reference
1SWSKD

Details

Configuration

Inset

Size

Open deck which spans multiple compartments

Framework/Structure

Reinforced concrete framework with inset balconies

Balustrade

Concrete upstand clad with cement fibre board.

Soffit

Concrete

L6 Benchmark

Balconies -

Balconies are defined in BS 8579. However, for the purpose of this PAS and the manner in which balconies impact external fire behaviour, balconies fall into one of three categories:

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

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

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

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

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

Fire Engineer Comments

Marley Eternit fibre cement boards have been mechanically fixed to steel brackets which, in turn, are fixed to the concrete parapet wall. Marley Eternity fibre cement boards achieve a fire classification of Class A1 when tested in accordance with BS EN 13501-1.

All balconies are concrete upstand parapet walls and all are covered with cement board in 2 colours. The concrete parapet sits on the slab edge. The cladding system has been mechanically fixed, which is seen to have a positive impact in accordance with the recommendations of PAS 9980:2022.

All materials installed as part of this wall system appear to be non-combustible, therefore pose minimal risk in terms of external fire spread.

The majority of the fire safety features provided to the block are in line with expectations for a general needs block of this size. The property operates a stay put policy and the existing fire safety provisions within the block would appear to support that.

The risk presented at this property, as a result of the external wall configuration, is low. All materials installed as part of the external wall system are non-combustible; there, the likelihood of external fire spread is sufficiently low.

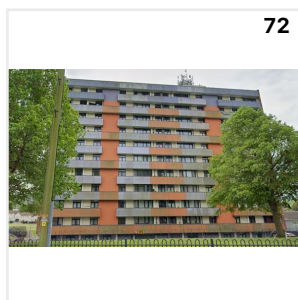
In the event of a fire, fire spread is likely to be at a lower rate within expectations for a building of this height, but nevertheless, tolerable rate, given the circumstances at the building in question; and/or

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.

Therefore it is our professional opinion that there is no requirement for remediation for this external wall type.

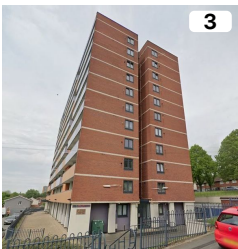
Photos



External Windows

Photo

External Window



Top, Mid, Side Hung Casements (ZIN1KB)

External Window: Top, Mid, Side Hung Casements

External Window Reference
ZIN1KB

Details

Surface Material

uPVC

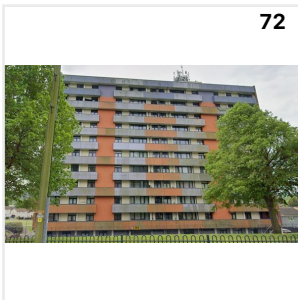
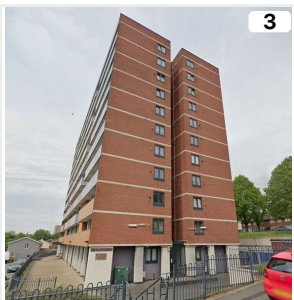
Frame Material

uPVC

Infill / Panel Material

Toughened Safety Glass

Photos



Plan: South Elevation



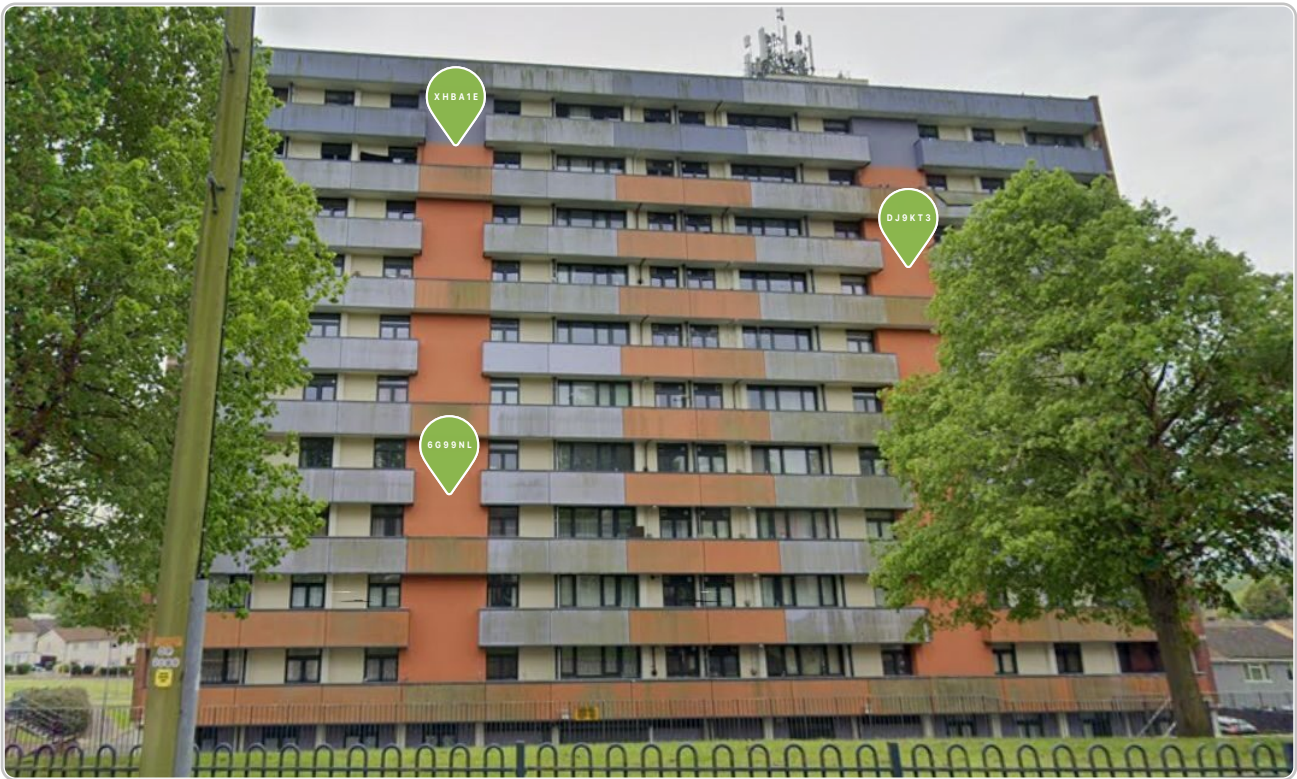
Plan: West Elevation



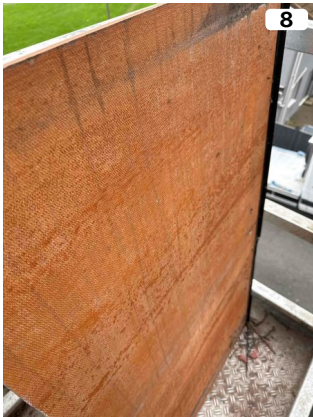
Plan: East Elevation



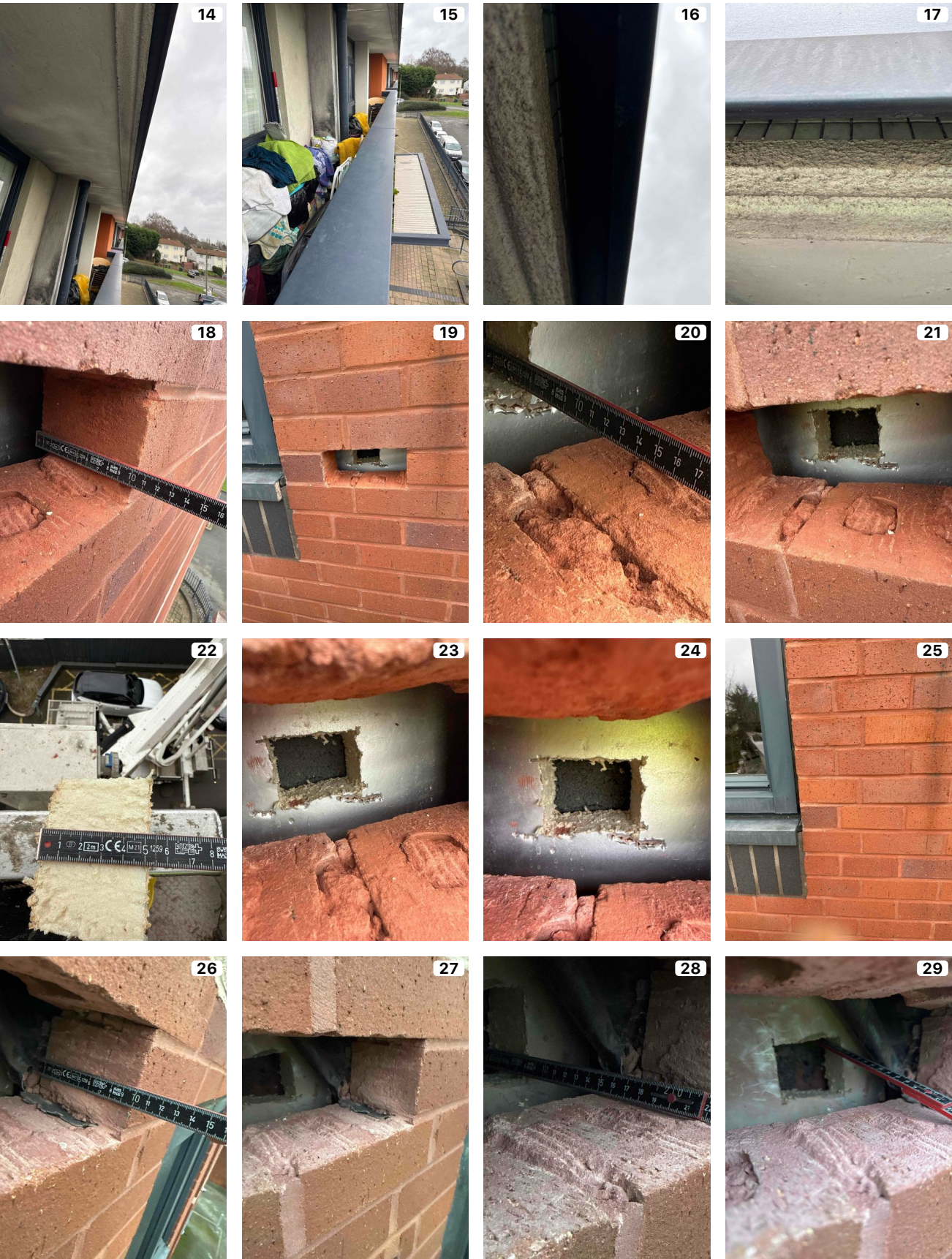
Plan: North Elevation



Photos



Photos Continued...



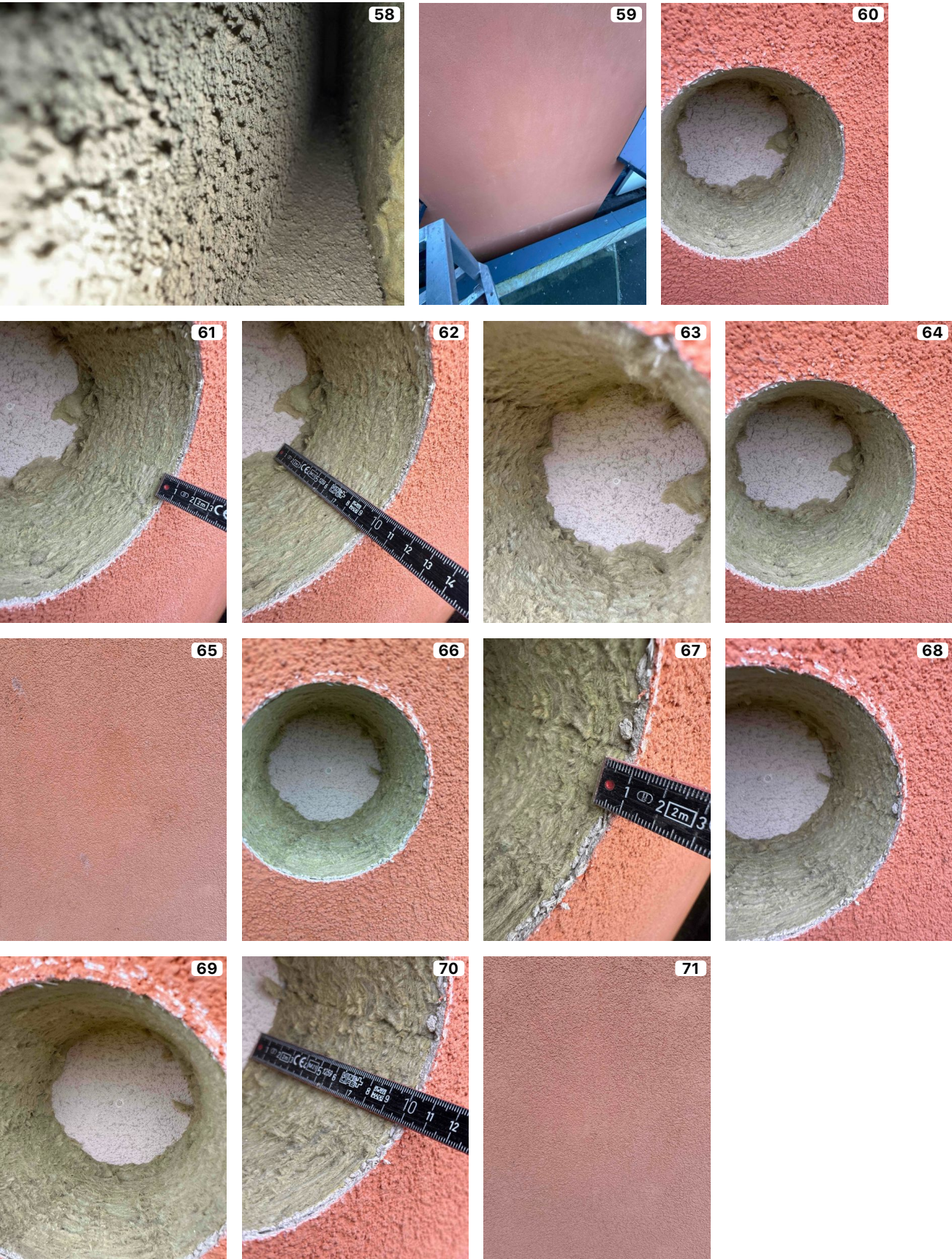
Photos Continued...



Photos Continued...



Photos Continued...



Photos Continued...





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