



FIRNTEC
BUILDING COMPLIANCE

Unit 4a, Darklake View
Estover
Plymouth
PL6 7TL

Document Version 3

Survey Date 09/11/2024

Suggested Review Date 09/11/2029

FIRE RISK APPRAISAL EXTERNAL WALLS

MOORLAND

Moorlands Court
Reservoir Road
Rowley Regis
West Midlands
B65 9PB

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

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

Fire Policy and Testing and Maintenance records

Table of Contents

Cover Page	1
Table of Contents	2
Summary	4
Abbreviation/ Term Definition	6
Statement of Competency	7
Terms of Reference	8
Executive Summary	10
Fire Strategy	13
Wall Constructions	17
Wall Construction: Wall Type 1 - Twin wall masonry - brickwork/concrete (KT1WV8)	18
Wall Construction: Wall Type 2 - Solid concrete with granular finish (IWNCKL)	21
Façade Configuration: 9YZ39E	24
Façade Configuration: TZ3BQX	26
Appendix	28
Asset Information	29
Aerial Perspective: Moorlands Court	34
Elevations	35
Inspections	36
Inspection: H5I2PI	38
Inspection: TTJ3F5	39
Inspection: I69XDG	40
Inspection: 9YCH7Z	41
Inspection: CQ6XBZ	43
Inspection: RYB7LZ	44
Inspection: C52EGR	45
Inspection: KRIWGG	46
Attachments & Balconies	47
Attachment: Cantilever Balcony (LFNQ21)	48
Penetrations	49
Penetration: Flue (FJDL1S)	50
External Windows	51

Table of Contents Continued

External Window: Top, Mid, Side Hung Casements (PLMFH2)	52
External Window: Fixed Lights (8QR77X)	53
External Window: Top, Mid, Side Hung Casements (QIJGI1)	54
External Doors	55
External Door: Single Leaf Entrance Doors (J3F8FX)	56
Plans & Elevations	57
Photos	59

Summary

Fire Risk Appraisal External Walls

Assessment and Certificate Reference

RB-4E4IB9

Assessed On, By

09/11/2024, Douglas Murray (Building Safety Consultant)

(BSc Building Surveying, ABBE DipFRA, AIFireE, AssocRICS, MFPA)

Produced For the Responsible Person

Sandwell Metropolitan Borough Council

Specification Conforms To

Our own internal quality system.

Assessment Scope

Assessment applies only to the building specified.

Recommended Review Date

09/11/2029

Assessed Property

Property Name

Moorland

Property Reference

RB-9TTF5E

Address

Moorlands Court

Reservoir Road

Rowley Regis

West Midlands

B65 9PB

Assessing Organisation

Firntec Ltd

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

0345 646 1566 — www.firntec.com

Assessor Remarks

The development of Mincing Lane, Rowley Hill Estate which included St Giles Court and Moorlands Court was commissioned by Rowley Regis Municipal Borough Council 1963, and building work was awarded to the contractors Wimpey who completed work on two similar buildings during this period which have since been demolished. The building comprises of 14 floors including ground and houses 85 individual self contained flats. The present day authority is Sandwell Metropolitan Borough Council.

The structure is of reinforced concrete frame with reinforced staircores, lift core, floor slabs and foundations. The external walls are formed from a hand laid brick outer leaf and an internal leaf of concrete blockwork with projecting balconies on all occupied floors. There are no cladding systems present on this building.

This report has been prepared for Sandwell Metropolitan Borough Council by Firntec Ltd Building Compliance. This survey has included consideration of the following pieces of legislation and other guidance relevant at the time of reporting:

The RRO (FSO) 2005

The Fire Safety Act 2021

The Building Safety Act 2022

Approved Document B of building regulations 2010

This report was prepared by Douglas Murray (BSc Building Surveying, ABBE DipFRA, AIFireE, AssocRICS, MFPA) who is a Building Surveyor with 25 years of fire related and construction experience in both new build and refurbishment projects on behalf of Firntec Ltd. Douglas is a member of the Royal Institute of Chartered Surveyors, the Institute of Fire Engineers, the Fire Protection Association, and an ABBE qualified Fire Risk Assessor. Douglas has specialised within Fire Safety and cladding investigations for eight years and has held senior posts with London and nationally based Registered Social Landlords. Douglas advises on and produces Building Safety Case Reports and has taken the lead for various clients securing, quality checking and completing Type 1-4 Fire Risk Assessments, completing Fire Risk Assessments of External Walls (FRAEW), leading on Intrusive investigative surveys, and preparing fire strategy documents. Part of the work Douglas completes, supports and evidence claims brought forward under the Defective Premises Act in the context of non-compliance and fire safety defects within multi occupancy buildings.

Summary

Abbreviation/ Term Definition

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

Statement of Competency

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

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

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

We confirm that they have:

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

Terms of Reference

Particulars

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

Limitations

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

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

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

The FRAEW report is to be reviewed:

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

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

Assumptions

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

- a) the extent of sampling carried out.
- b) the accuracy of information upon which it has been necessary to rely, especially where it has not been possible to verify the information through site survey and inspection.
- c) the extent of the content and detail within the report; and
- d) the limitations at the time of the FRAEW of available knowledge on the fire performance of the materials, products and systems forming the external walls of the building.

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

Statement of Intent

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

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

Executive Summary

External Wall Systems and Attachments on the Building

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

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

8 Items	Effect	Risk
Wall Construction Wall Type 1 - Twin wall masonry - brickwork/concrete (KT1WV8)	Positive	Low
Wall Construction Wall Type 2 - Solid concrete with granular finish (IWNCKL)	Positive	Low
Attachment Cantilever Balcony (LFNQ21)	Positive	Low
Penetration Flue (FJDL1S)	Negative	Low
External Window Top, Mid, Side Hung Casements (PLMFH2)		
External Window Fixed Lights (8QR77X)		
External Window Top, Mid, Side Hung Casements (QIJG11)		
External Door Single Leaf Entrance Doors (J3F8FX)		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 **9YZ39E** which includes wall construction **KT1WV8**.

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

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



Risk Factor Analysis 2

This analysis looks at façade configuration **TZ3BQX** which includes wall construction **IWNCKL**.

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

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



Overall Building Risk Rating



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

Recommended Remediations

No recommended remediations identified.

Recommended Interim Measures

No recommended interim measures identified.

Fire Strategy

Fire Strategy & Hazard Risk Factors

F.1 Occupancy

General needs housing

Neutral

F.2 Evacuation

Stay put

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

Positive

Photo Ref. 1

F.3 Escape Route Design

Single staircase, with lobby approach

Photo Ref. 2, 3, 4, 5, 6, 7

Negative

F.4 Compartmentation

Communal Stairwell:

Ventilated by two louvre panels at the head of each stairwell.

Communal stairwell windows are fixed and non-openable.

Communal Corridors:

Ventilated by louvre vents located adjacent to the communal doors to the stairwell.

12th Floor Panel Modification:

A louvre panel on the 12th floor has been partially boarded over with non-combustible cementitious board, partially restricting natural airflow.

Chute Rooms:

Naturally ventilated via aerated blockwork, which provides passive smoke dissipation.

Neutral

F.5 Smoke Control

Ventilated by two louvre panels at the head of each stairwell.

Communal stairwell windows are fixed and non-openable.

Communal Corridors:

Ventilated by louvre vents located adjacent to the communal doors to the stairwell.

12th Floor Panel Modification:

A louvre panel on the 12th floor has been partially boarded over with non-combustible cementitious board, partially restricting natural airflow.

Chute Rooms:

Naturally ventilated via aerated blockwork, which provides passive smoke dissipation.

Photo Ref. 8, 9, 10, 11

Neutral

F.6 Fire Alarm & Detection

Smoke alarms are installed to LD2 standard (smoke detection in all high-risk areas, e.g. hallways, living rooms, kitchens). Detection systems are hardwired or battery powered and subject to cyclical testing. No communal fire alarm system is installed,

Positive

F.7 Fire Suppression

A deluge suppression system protects the refuse chute bin store.

Control panel is located in the basement behind the bin store.

Positive

F.8 - Firefighting Facilities

Adequate access for firefighting vehicles

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

Photo Ref. 12, 13

Positive

F.9 Rising Mains

A fire hydrant is available, with exact location details stored in the Firefighter's White Box mounted externally on the front elevation of the building.

The box also contains service isolation plans for gas and building access keys.

Dry Riser Inlet:

Located in the main entrance lobby.

Secured with a budget lock.

Outlets:

Provided in cupboards on every floor, adjacent to chute rooms.

Secured with budget locks.

FRA notes loose and untidy telecommunication cabling within some riser cupboards (does not restrict outlet access, to be tidied during future refurbishment).

Positive

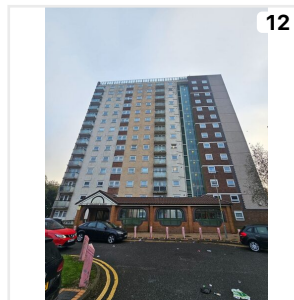
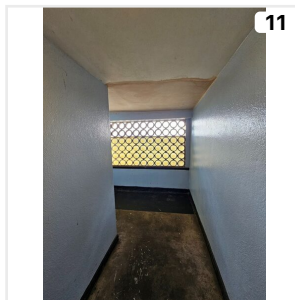
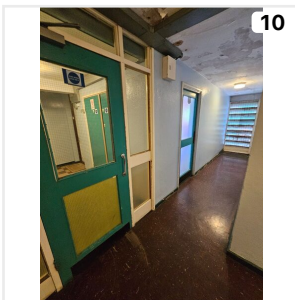
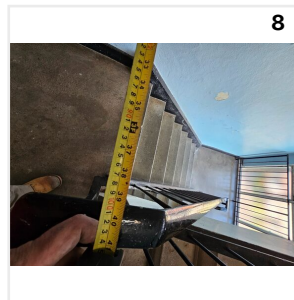
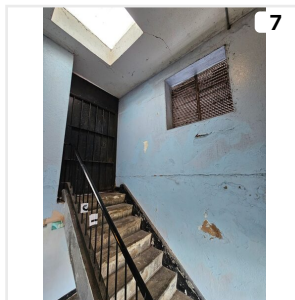
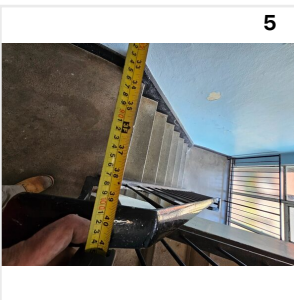
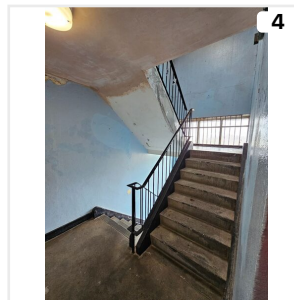
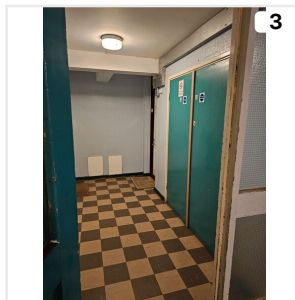
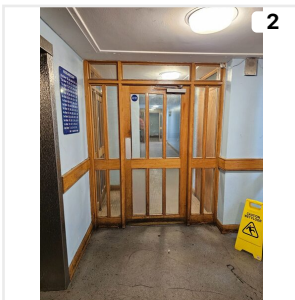
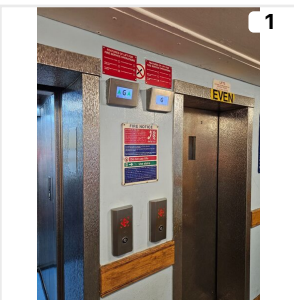
F.10 Lifts Used By Firefighters

Absence of firefighting lift in buildings above 18 m

Photo Ref. 14, 15, 16

Neutral

Photos

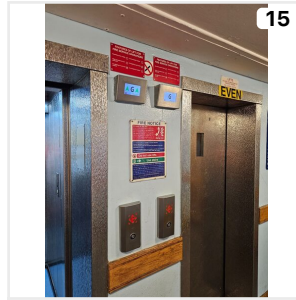




13



14



15



16

Fire Service Intervention

Event	Seconds	Minutes & Seconds
Firefighter travel to operational bridgehead	0 Seconds	—
Total Time	0 Seconds	—

Nearest Fire Station

Oldbury Fire Station, Old Park Ln, Oldbury B69 4PU which is 1.2 miles or 5 minutes in peak hours traffic

Wall Constructions

Wall Construction	Build-up
Wall Type 1 - Twin wall masonry - brickwork/ concrete (KT1WV8)	• Outer leaf • Cavity • Inner Leaf
Wall Type 2 - Solid concrete with granular finish (IWNCKL)	• Surface Finish (Granular stone finish which forms part of the concrete wall system)

Wall Construction: Wall Type 1 - Twin wall masonry - brickwork/concrete

Construction Reference
KT1WV8

This wall construction was identified by wall inspections H5I2PI, I69XDG, 9YCH7Z, and TTJ3F5. The build-up, cavity barrier, and floor slab information is taken directly from inspection H5I2PI. See the Inspections section of this report for full inspection details.

Construction	Effect	Risk
Wall Type 1 - Twin wall masonry - brickwork/concrete (KT1WV8)	Positive	Low

Build-Up

3 Elements	Thickness/Depth	Rating (BS EN13501)
Outer leaf	102mm	A1 - Non-Combustible
Brickwork		
Cavity	60mm	
Inner Leaf	100mm	A1 - Non-Combustible
Cast in situ concrete		

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/A2

Positive

K.5 Cavities

Cavities closed at least at compartment floors and walls but not:

- around windows and other openings*; or
- at ventilation ducts, grilles or other openings for services

Neutral

K.6 Insulation

No insulation

Neutral

K.7 Substrate

Masonry, >75 mm thick

Positive

PAS Standard Benchmark

L1 Benchmark

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

Masonry (brickwork, blockwork, reinforced concrete)

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

L5 Benchmark

FRAMES -

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

L6 Benchmark

BALCONIES -

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

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

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

Storage of materials and other uses by residents also need to be taken into account. Any bulk storage can pose a significant hazard, as can the use of combustion appliances such as barbecues and heaters.

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

L7 Benchmark

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.

Wall Construction: Wall Type 2 - Solid concrete with granular finish

Construction Reference
IWNCKL

This wall construction was identified by wall inspections CQ6XBZ, RYB7LZ, C52EGR, and KRIWGG. The build-up, cavity barrier, and floor slab information is taken directly from inspection CQ6XBZ. See the Inspections section of this report for full inspection details.

Construction	Effect	Risk
Wall Type 2 - Solid concrete with granular finish (IWNCKL)	Positive	Low

Build-Up

1 Element	Thickness/Depth	Material	Rating (BS EN13501)
Surface Finish	250mm	Granular stone finish which forms part of the concrete wall system	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/A2	Positive
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K.5 Cavities

There are no cavities present in this wall type

Positive

K.6 Insulation

No insulation

PAS Standard Benchmark

L1 Benchmark

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

Masonry (brickwork, blockwork, reinforced concrete)

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

L5 Benchmark

FRAMES -

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

L6 Benchmark

BALCONIES -

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

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

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

Storage of materials and other uses by residents also need to be taken into account. Any bulk storage can pose a significant hazard, as can the use of combustion appliances such as barbecues and heaters.

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

Façade Configuration: 9YZ39E

Items in Façade

7 Items

Effect

Risk

Wall Construction
Wall Type 1 - Twin wall masonry - brickwork/concrete
(KT1WV8)

Positive

Low

Attachment
Cantilever Balcony (LFNQ21)

Positive

Low

External Door
Single Leaf Entrance Doors (J3F8FX)

Low

External Window
Top, Mid, Side Hung Casements (PLMFH2)

External Window
Fixed Lights (8QR77X)

External Window
Top, Mid, Side Hung Casements (QIJGI1)

Penetration
Flue (FJDL1S)

Negative

Low

Façade Configuration Risk Factors

N.1 Building Height/Cladding Height

There are no cladding systems present on this building

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

Neutral

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

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

Positive

Risk Factor Analysis

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

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



Fire Engineers Comments

External wall surfaces would not support flame spread as they are all masonry. There is also no insulation within the cavity and wall systems are built off the floor slab on each corresponding floor level. The concrete floor slab therefore creates a natural horizontal fire break.

Positive

A rating of low (3) has been applied because there are no visible signs of cavity closers or fire cavity barriers around the PVCu window jambs.

Façade Configuration: TZ3BQX

Items in Façade

6 Items

Effect

Risk

Wall Construction
Wall Type 2 - Solid concrete with granular finish
(IWNCKL)

Positive

Low

Attachment
Cantilever Balcony (LFNQ21)

Positive

Low

External Door
Single Leaf Entrance Doors (J3F8FX)

Low

External Window
Top, Mid, Side Hung Casements (PLMFH2)

External Window
Fixed Lights (8QR77X)

External Window
Top, Mid, Side Hung Casements (QIJG11)

Façade Configuration Risk Factors

N.1 Building Height/Cladding Height

There are no cladding systems present on this building

N.4 Cavities & Openings

No cavity

Positive

N.7 Overhangs & Projections

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

Positive

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

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

Neutral

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

Where vents pass through a cavity, either:

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

Neutral

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

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

Positive

Risk Factor Analysis

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

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



Fire Engineers Comments

External wall surfaces would not support flame spread as they are solid masonry. Wall systems are built off the floor slab on each corresponding floor level.

Positive

APPENDIX

Asset Information

Client Name

Sandwell Metropolitan Borough Council

Client Address

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

Responsible Person

Sandwell Metropolitan Borough Council

Safety Assistance

Not Required

Contact Details

As supplied by client

Fire Alarm System

Smoke alarms are installed to LD2 standard (smoke detection in all high-risk areas, e.g. hallways, living rooms, kitchens). No communal fire alarm system is installed,

Emergency Lighting

Installed in communal parts

Emergency Lighting

Emergency lighting appears to conform to the requirements of BS5266-1 design standard. (Some repair/replacement issues raised)

Portable Fire Fighting Equipment

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

Portable Fire Fighting Equipment

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

Smoke Control

Natural smoke control

Smoke Control

Communal Stairwell:
Ventilated by two louvre panels at the head of each stairwell.

Communal stairwell windows are fixed and non-openable.

Communal Corridors:

Ventilated by louver vents located adjacent to the communal doors to the stairwell.

12th Floor Panel Modification:

A louver panel on the 12th floor has been partially boarded over with non-combustible cementitious board, partially restricting natural airflow.

Chute Rooms:

Naturally ventilated via aerated blockwork, which provides passive smoke dissipation.

Suppression Systems

Partial sprinkler system installed (Detailed in Description)

Suppression System

A deluge suppression system protects the refuse chute bin store.

Control panel is located in the basement behind the bin store.

Fire Fighting Facilities

Dry Riser

Fire Fighting Facilities

Dry Riser Inlet:

Located in the main entrance lobby.

Secured with a budget lock.

Outlets:

Provided in cupboards on every floor, adjacent to chute rooms.

Secured with budget locks.

FRA notes loose and untidy telecommunication cabling within some riser cupboards (does not restrict outlet access, to be tidied during future refurbishment).

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

A fire hydrant is available, which is approximately 15m from the main entrance with exact location details stored in the Firefighter's White Box mounted externally on the front elevation of the building. The box also contains service isolation plans for gas and building access keys.

Housekeeping

Good standard. Means of escape clear. Refuse stored appropriately

Secure Information Boxes

Secure information box (SIB) installed

Secure Information Boxes

A proprietary steel SIB is fitted within the main entrance lobby

Signage

Appropriate signage installed throughout premises

Signage

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

Property Type

Apartment Block, Residential Purpose-built

Building Era / Age

Known Build Date

Known Build Date

1963

Building Height

Moorlands Court is approximately 35 metres tall. Calculated from lowest point at ground to the upper most enclosed habitable floor level

Number of Storeys (Ground and above)

14

Number of Basement Levels

None

Number of Flats

85

Flat Types

Single Storey

Structural Wall Material

Concrete / Brick / Render

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

No Exterior Cladding

Electronic Entrance System

Yes

Carpark

External/Outdoor Carpark

Employees

None

Residents

Yes

Approx number of Residents

170

Residents (Extended)

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

People With Reduced Mobility

Other

People with Reduced Mobility (Extended)

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

Lone Workers

None

Young Persons Employed in the Premises

None

Escapes & Exits

There are sufficient fire exits from the premises of suitable width and within acceptable travel distances. These will allow all persons in the premises to evacuate safely in the event of fire. Emergency exits open outwards in escape direction.

Number Of Internal Escape Stairs

The building is provided with a single escape stair

Number Of Final Exits

The building is provided with two individual escape exits

External Means Of Escape

None Present

Types Of Lifts Installed

Passenger

Evacuation Chairs Installed

No

Refuge Points Present

No

Stairwells Protected / Lobbied

Yes

Flat Doors Open Onto Stairs

No

Current Evacuation Strategy

Stay Put

Current Stay Put Strategy Description

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

Current Evacuation Strategy for the property considered appropriate?

Yes

What is the recommended evacuation strategy for the property?

Stay Put

Aerial Perspective: Moorlands Court

Ariel image of Moorlands Court and the surrounding area



Elevations

Photo



Inspections

Elevation Location

Inspection

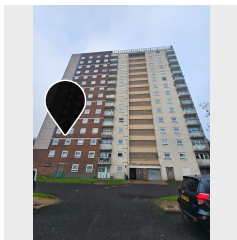
Elements



Inspection: H5I2PI

Wall Type 1 - Twin wall masonry brickwork/
concrete
Accessible wall

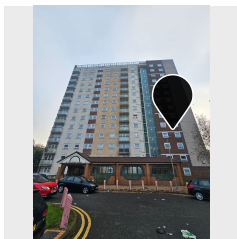
- Outer leaf
- Cavity
- Inner Leaf



Inspection: TTJ3F5

Wall Type 1 - Twin wall masonry brickwork/
concrete
Accessible wall

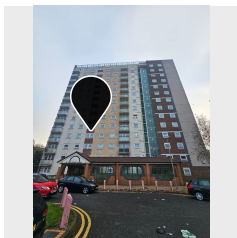
- Outer leaf
- Cavity
- Inner Leaf



Inspection: I69XDG

Wall Type 1 - Twin wall masonry brickwork/
concrete
Accessible wall

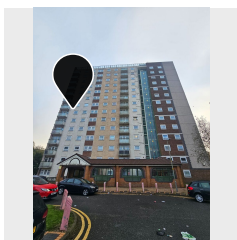
- Outer leaf
- Cavity
- Inner Leaf



Inspection: 9YCH7Z

Wall Type 1 - Twin wall masonry brickwork/
concrete
Accessible wall

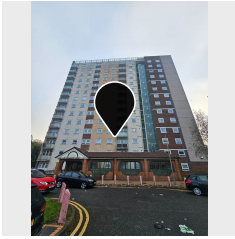
- Outer leaf
- Cavity
- Inner Leaf



Inspection: CQ6XBZ

Wall Type 1 - Twin wall masonry brickwork/
concrete
Accessible wall

- Surface Finish (Granular stone finish which forms part of the concrete wall system)

Elevation Location**Inspection****Elements****Inspection: RYB7LZ**

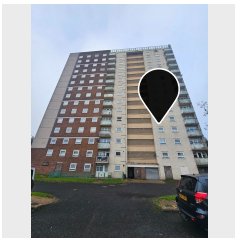
Wall Type 1 - Twin wall masonry brickwork/
concrete
Accessible wall

- Surface Finish (Granular stone finish which forms part of the concrete wall system)

**Inspection: C52EGR**

Wall Type 1 - Twin wall masonry brickwork/
concrete
Accessible wall

- Surface Finish (Granular stone finish which forms part of the concrete wall system)

**Inspection: KRIWGG**

Wall Type 1 - Twin wall masonry brickwork/
concrete
Accessible wall

- Surface Finish (Granular stone finish which forms part of the concrete wall system)

Inspection: H5I2PI

Elevation • Location
Wall Type 1 - Twin wall masonry brickwork/concrete • Accessible wall



Name/Summary

Wall Type 1 - Twin wall masonry - brickwork/concrete

Build-Up

3 Elements	Thickness/Depth	Photo Ref.	Rating (BS EN13501)
------------	-----------------	------------	---------------------

Outer leaf	102mm		A1 - Non-Combustible
------------	-------	--	----------------------

Brickwork

Cavity	60mm		
--------	------	--	--

Inner Leaf	100mm		A1 - Non-Combustible
------------	-------	--	----------------------

Cast in situ concrete

Cavity Barriers

None

Inspection Photos



Inspection: TTJ3F5

Elevation • Location
Wall Type 1 - Twin wall masonry brickwork/concrete • Accessible wall



Name/Summary

Wall Type 1 - Twin wall masonry - brickwork/concrete

Build-Up

3 Elements	Thickness/Depth	Photo Ref.	Rating (BS EN13501)
------------	-----------------	------------	---------------------

Outer leaf	102mm		A1 - Non-Combustible
------------	-------	--	----------------------

Brickwork

Cavity	60mm		
--------	------	--	--

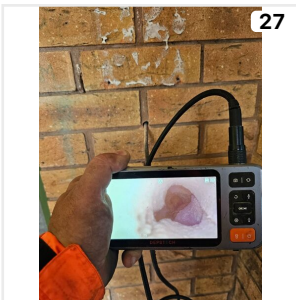
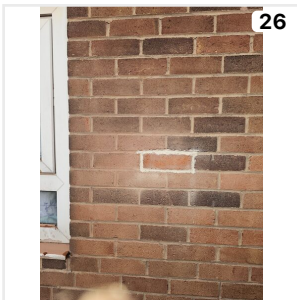
Inner Leaf	100mm		A1 - Non-Combustible
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Cast in situ concrete

Cavity Barriers

None

Inspection Photos



Inspection: I69XDG

Elevation • Location
Wall Type 1 - Twin wall masonry brickwork/concrete • Accessible wall



Name/Summary

Wall Type 1 - Twin wall masonry - brickwork/concrete

Build-Up

3 Elements	Thickness/Depth	Photo Ref.	Rating (BS EN13501)
------------	-----------------	------------	---------------------

Outer leaf	102mm		A1 - Non-Combustible
------------	-------	--	----------------------

Brickwork

Cavity	60mm		
--------	------	--	--

Inner Leaf	100mm		A1 - Non-Combustible
------------	-------	--	----------------------

Cast in situ concrete

Cavity Barriers

None

Inspection Photos



Inspection: 9YCH7Z

Elevation • Location
Wall Type 1 - Twin wall masonry brickwork/concrete • Accessible wall



Name/Summary

Wall Type 1 - Twin wall masonry - brickwork/concrete

Build-Up

3 Elements	Thickness/Depth	Photo Ref.	Rating (BS EN13501)
------------	-----------------	------------	---------------------

Outer leaf	102mm		A1 - Non-Combustible
------------	-------	--	----------------------

Brickwork

Cavity	60mm		
--------	------	--	--

Inner Leaf	100mm		A1 - Non-Combustible
------------	-------	--	----------------------

Cast in situ concrete

Cavity Barriers

None

Inspection Photos



34



Inspection: CQ6XBZ

Elevation • Location
Wall Type 1 - Twin wall masonry brickwork/concrete • Accessible wall



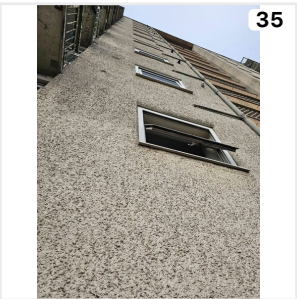
Name/Summary

Wall Type 2 - Solid concrete with granular finish

Build-Up

1 Element	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	250mm	Granular stone finish which forms part of the concrete wall system		A1 - Non-Combustible

Inspection Photos



Inspection: RYB7LZ

Elevation • Location
Wall Type 1 - Twin wall masonry brickwork/concrete • Accessible wall



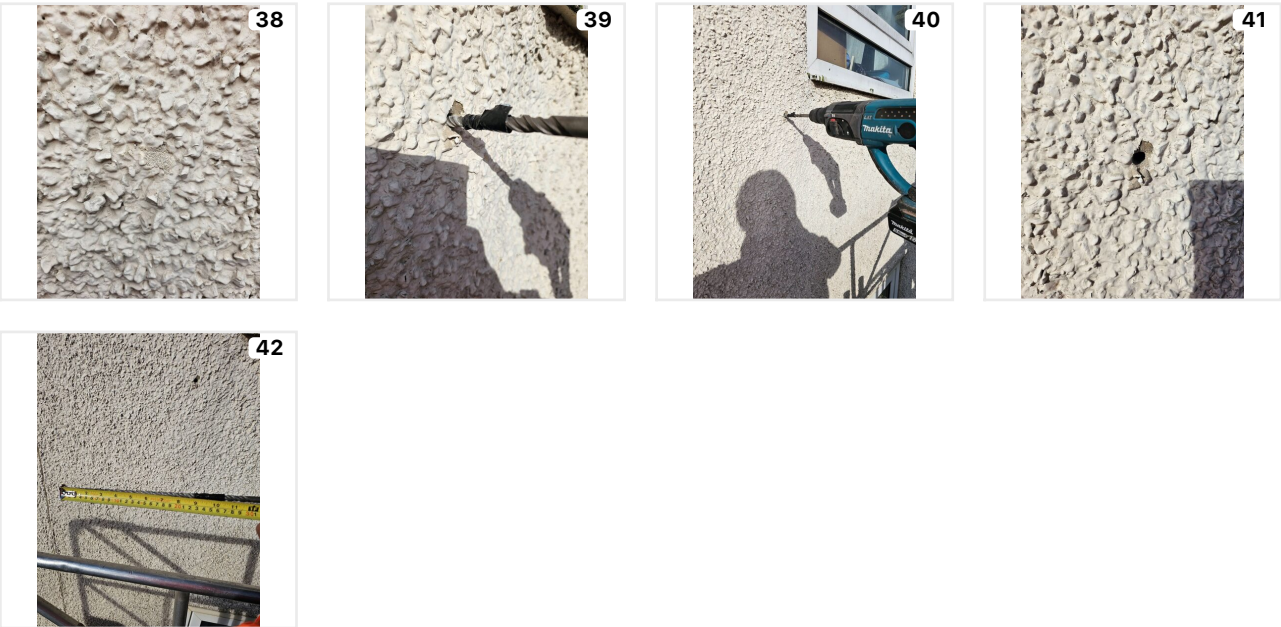
Name/Summary

Wall Type 2 - Solid concrete with granular finish

Build-Up

1 Element	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	250mm	Granular stone finish which forms part of the concrete wall system		A1 - Non-Combustible

Inspection Photos



Inspection: C52EGR

Elevation • Location
Wall Type 1 - Twin wall masonry brickwork/concrete • Accessible wall



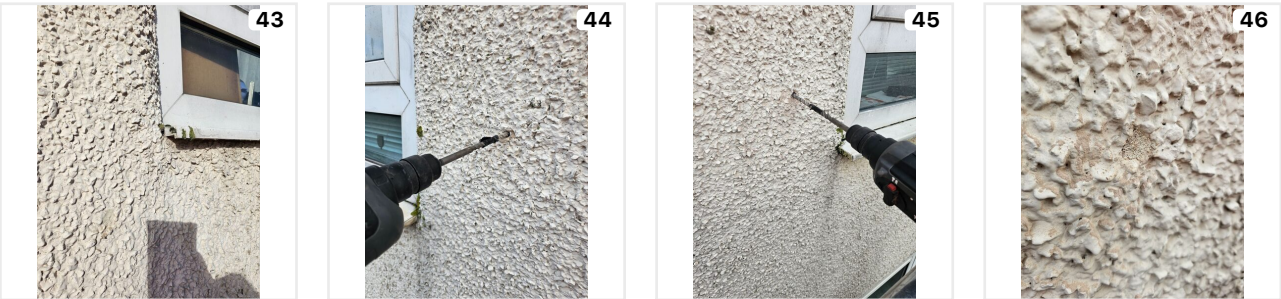
Name/Summary

Wall Type 2 - Solid concrete with granular finish

Build-Up

1 Element	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	250mm	Granular stone finish which forms part of the concrete wall system		A1 - Non-Combustible

Inspection Photos



Inspection: KRIWGG

Elevation • Location
Wall Type 1 - Twin wall masonry brickwork/concrete • Accessible wall



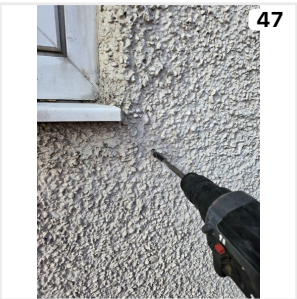
Name/Summary

Wall Type 2 - Solid concrete with granular finish

Build-Up

1 Element	Thickness/Depth	Material	Photo Ref.	Rating (BS EN13501)
Surface Finish	250mm	Granular stone finish which forms part of the concrete wall system		A1 - Non-Combustible

Inspection Photos



Attachments & Balconies

Photo

Attachment



Cantilever Balcony (LFNQ21)

Configuration: Stacked

Size: Private balcony spanning only a single compartment

Attachment: Cantilever Balcony

Attachment Reference
LFNQ21

Details

Configuration

Stacked

Size

Private balcony spanning only a single compartment

Framework/Structure

Reinforced concrete framework extension of the floor slab

Decking & Supports

Concrete

Handrail

Timber

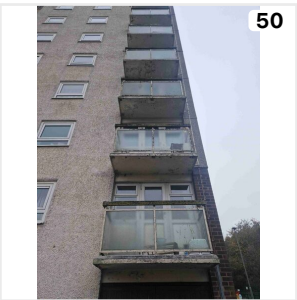
Balustrade

Steel and Glass

Soffit

Concrete

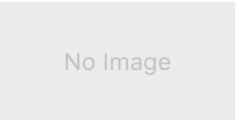
Photos



Penetrations

Photo

Penetration



Flue (FJDL1S)
Inspection Type: Visual

Penetration: Flue

Penetration Reference
FJDL1S

Details

Photo

1 Image

Inspection Type

Visual

Duct Pipework Material

ABS

Means Of Fire Stopping

None

Details

Incorrect use of PU foam

External Windows

Photo

External Window



Top, Mid, Side Hung Casements (PLMFH2)



Fixed Lights (8QR77X)



Top, Mid, Side Hung Casements (QIJGI1)

External Window: Top, Mid, Side Hung Casements

External Window Reference
PLMFH2

Details

Surface Material

uPVC

Frame Material

uPVC

Infill / Panel Material

Toughened Glass

Photos



External Window: Fixed Lights

External Window Reference
8QR77X

Details

Surface Material

Aluminium

Frame Material

Aluminium

Infill / Panel Material

Toughened Glass

Photos



External Window: Top, Mid, Side Hung Casements

External Window Reference
QIJGI1

Details

Surface Material

uPVC

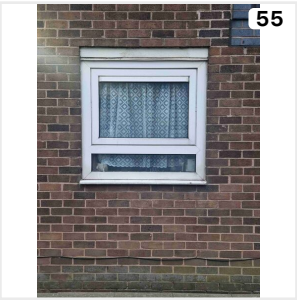
Frame Material

uPVC

Infill / Panel Material

Toughened Glass

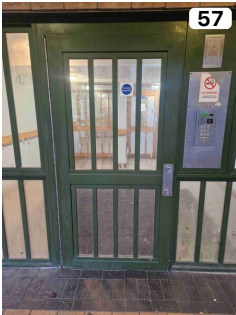
Photos



External Doors

Photo

External Door



Single Leaf Entrance Doors (J3F8FX)

External Door: Single Leaf Entrance Doors

External Door Reference
J3F8FX

Details

Surface Material

Aluminium

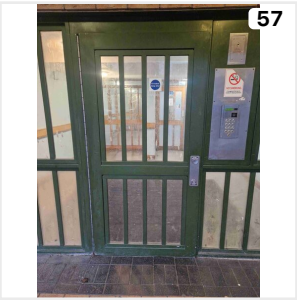
Frame Material

Aluminium

Infill / Panel Material

Toughened Glass

Photos



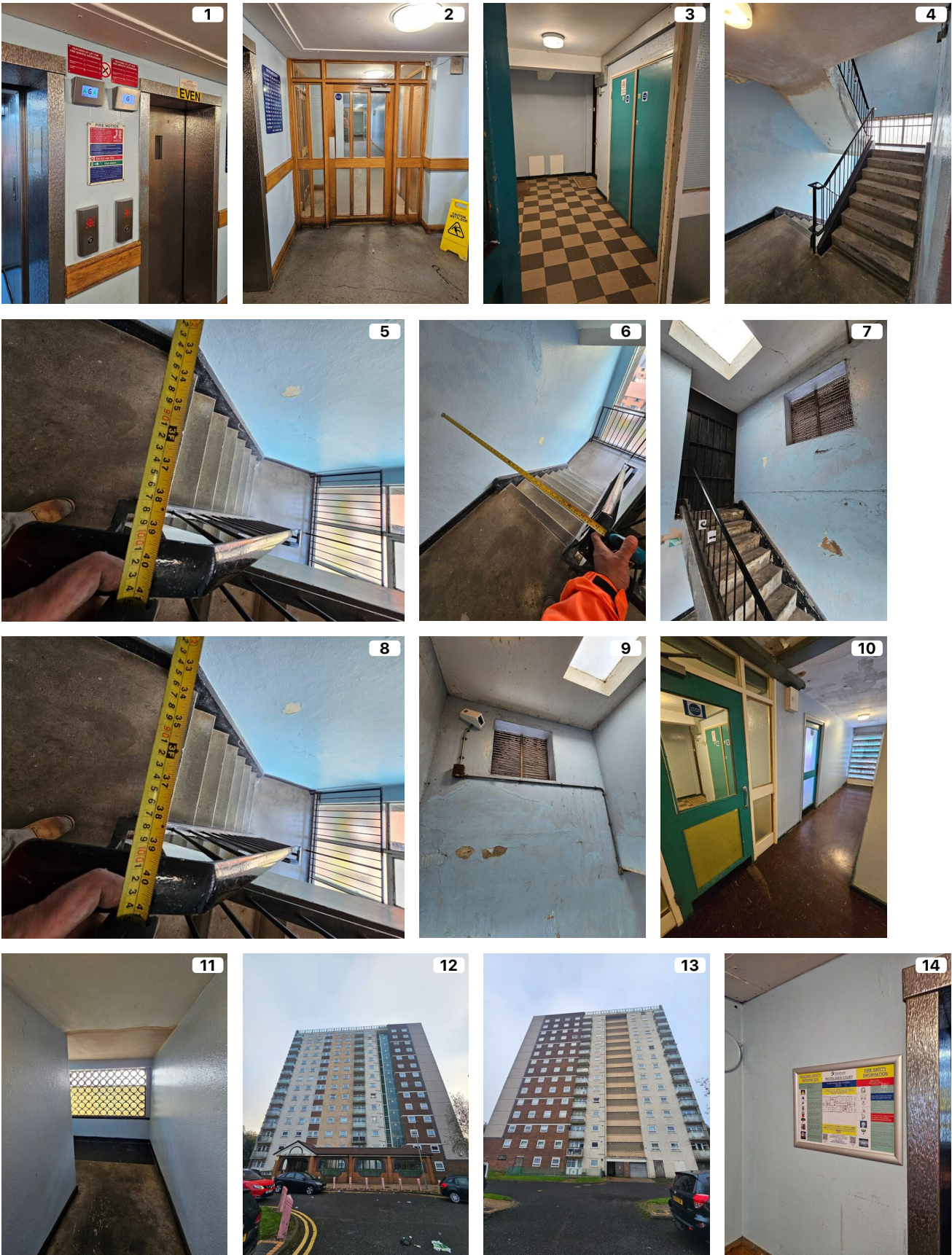
Plan: Wall Type 1 - Twin wall masonry brickwork/concrete



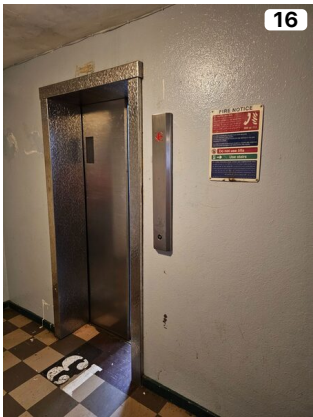
Plan: Wall Type 1 - Twin wall masonry brickwork/concrete



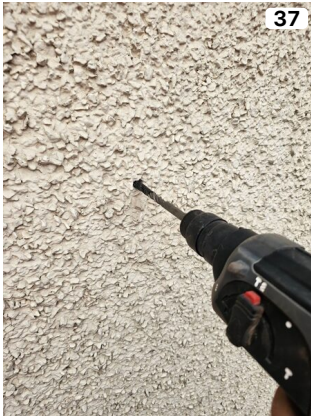
Photos



Photos Continued...



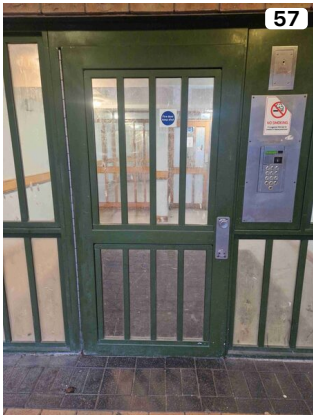
Photos Continued...



Photos Continued...



Photos Continued...





FIRNTEC

BUILDING COMPLIANCE