Developed for:
Re-creo Netherhall Gardens Ltd.

Outline Fire Safety Strategy

13 Netherhall Gardens
London

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Outline Fire Safety Strategy

13 Netherhall Gardens
London

Project Reference: AF 3302

Client: Re-creo Netherhall Gardens Ltd.

Issue	Date	Description	Author	Checked	Approval
01	30/09/22	First issue for design team review	RM	AQ	AQ
02	05/10/22	Updated in line with the latest drawings	RM	AQ	AQ

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The checker has provided an internal review of the technical content of the report.

The approver confirms the report has received quality assurance in accordance with the principles of ISO 9001 and authorises external release of the document on behalf of Ashton Fire.

CONTENTS

1. INTRODUCTION

1.1 General

1.1.1 Ashton Fire have been commissioned by Re-creo Netherhall Gardens Ltd to provide fire safety consultancy services in support of the proposed re-development of an existing premise in London into a residential building.

1.1.2 This report outlines the minimum fire safety provisions required for the proposed 13 Netherhall Gardens development to be compliant with the Functional Requirements of the Building Regulations 2010 (as amended).

1.1.3 This document is an outline document only and is not to be submitted as part of the Building Regulation application; a Detailed Fire Safety Strategy is required to be developed during the proceeding design stages to support. Unless specifically covered in this report please refer to the adopted design guidance for further details.

1.1.4 This document has been prepared to support the pre-planning design and the planning application for the 13 Netherhall Gardens development. The contents of this report only covers Phase 3 of 13 Netherhall Gardens and do not include the fire strategy design for the adjacent property.

1.2 Fire safety guidance

1.2.1 The principal guidance document being used to demonstrate compliance with the requirements of the Building Regulations shall be Approved Document B (ADB) in the first instance and through the complementary British Standard 9991 (BS 9991). An alternative solution can be applied to achieve an acceptable level of safety commensurate with the function requirements of the Building Regulations 2010 (as amended).

1.2.2 On the basis that recommendations made within the guidance documents are followed, it is considered that the Requirements of the Building Regulations 2010 (as amended) will be fulfilled; and that an adequate level of fire safety will be provided throughout the premises.

1.3 Alternative fire engineering solutions

1.3.1 Fire engineering principles are employed to support alternative solutions where strict adherence to the codes would conflict with the wider aspirations for the scheme. The use of a fire safety engineering approach is recognised within ADB as an acceptable means of complying with the Functional Requirements.

1.3.2 Apart from where noted in this report, the design will be in accordance with the recommendations of ADB. Departures from the code guidance are identified and alternative solutions proposed following the methodology outlined in PD 7974 [1].

1.3.3 In accordance with the fire safety engineering principles detailed in the PD 7974 codes of practice, all fire precautions are determined based on there being one seat of fire, as considered suitable for accidental fires.

1.4 Reference information

1.4.1 This document is based on information provided by the design team to Ashton Fire as listed in Table 1. Additional contradictory information or subsequent design variations to the information supplied may render the findings and recommendations of this report invalid.

1.4.2 The figures used within this report are indicative and used to express the principles of the fire safety strategy. They may not be representative of final arrangement. The principles contained within this report are required to be maintained through any design amendments during the life of the building.

Table 1 – Project documentation referenced

Description	Reference	Drawing No.	Date
Site Layout Plan	AL.102.06 Proposed Roof Plan	AL.102.01	04/10/2022
Ground Floor Layout Plan	AL.102.02 Proposed Ground Floor Plan	AL.102.02	
1st Floor Layout Plan	AL.102.03 Proposed First Floor Plans	AL.102.03	
2nd Floor Layout Plan	AL.102.04 Proposed Second Floor Plan	AL.102.04	
3rd Floor Layout Plan	AL.102.05 Proposed Third Floor Plan	AL.102.05	
Roof Layout Plan	AL.102.06 Proposed Roof Plan	AL.102.06	

1.5 Project description

1.5.1 This report is specific to the 13 Netherhall Gardens residential development located in North West London.

1.5.2 The development consists of the proposed development of the land adjacent to Elm Tree House into a residential apartment building. The new building will comprise of four storeys (G + 3), with the final exit level situated on the ground floor.

1.5.3 **A total of six flats** have been commissioned in the building and egress from the upper floors is facilitated by a single common protected stair (this is supplemented by an internal stair int the two duplexes). The flats layout throughout the building is as follows:

- **Four individual single storey flats** are located at Ground Floor (Flat 2), First Floor (Flat 3), Second Floor (Flat 5) and Third Floor (Flat 6).
- **Two duplex flats** are arranged across the Ground & First Floor (Flat 1) and Second & Third Floor (Flat 4), respectively. Each flat will feature an internal escape stair.

1.5.4 The height of the topmost storey is circa 8.7m above the ground floor access level.

1.5.5 The protected common stair discharges directly to outside. The duplex at Ground Floor level (Flat 1) also has independent escapes to outside from the flat.

1.5.6 A bike store is also present on the ground floor level and is only accessed externally.

1.5.7 Indicative layouts for the proposed scheme are illustrated in the figures overleaf.

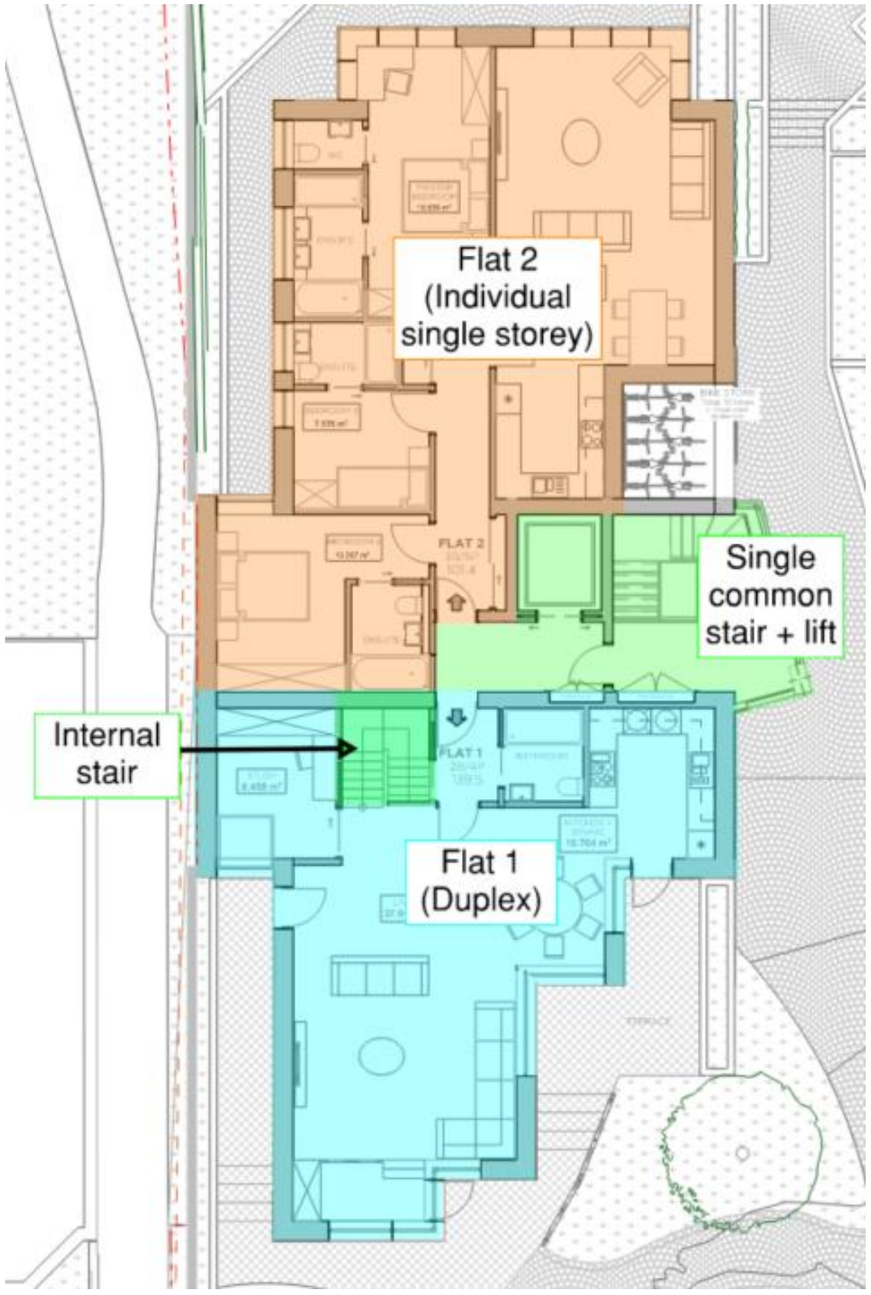


Figure 1 - Indicative arrangement of the block of flat at Ground Floor

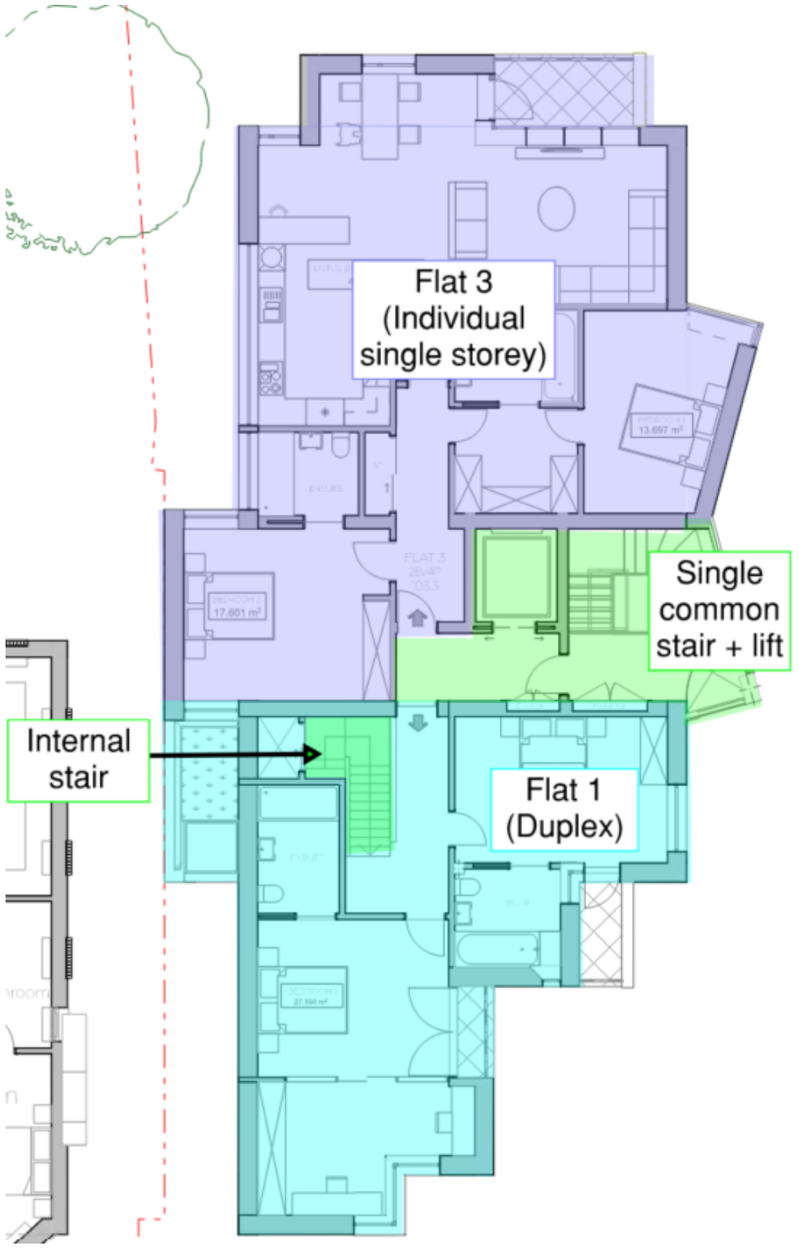


Figure 2 – Indicative arrangement of the block of flat at First Floor

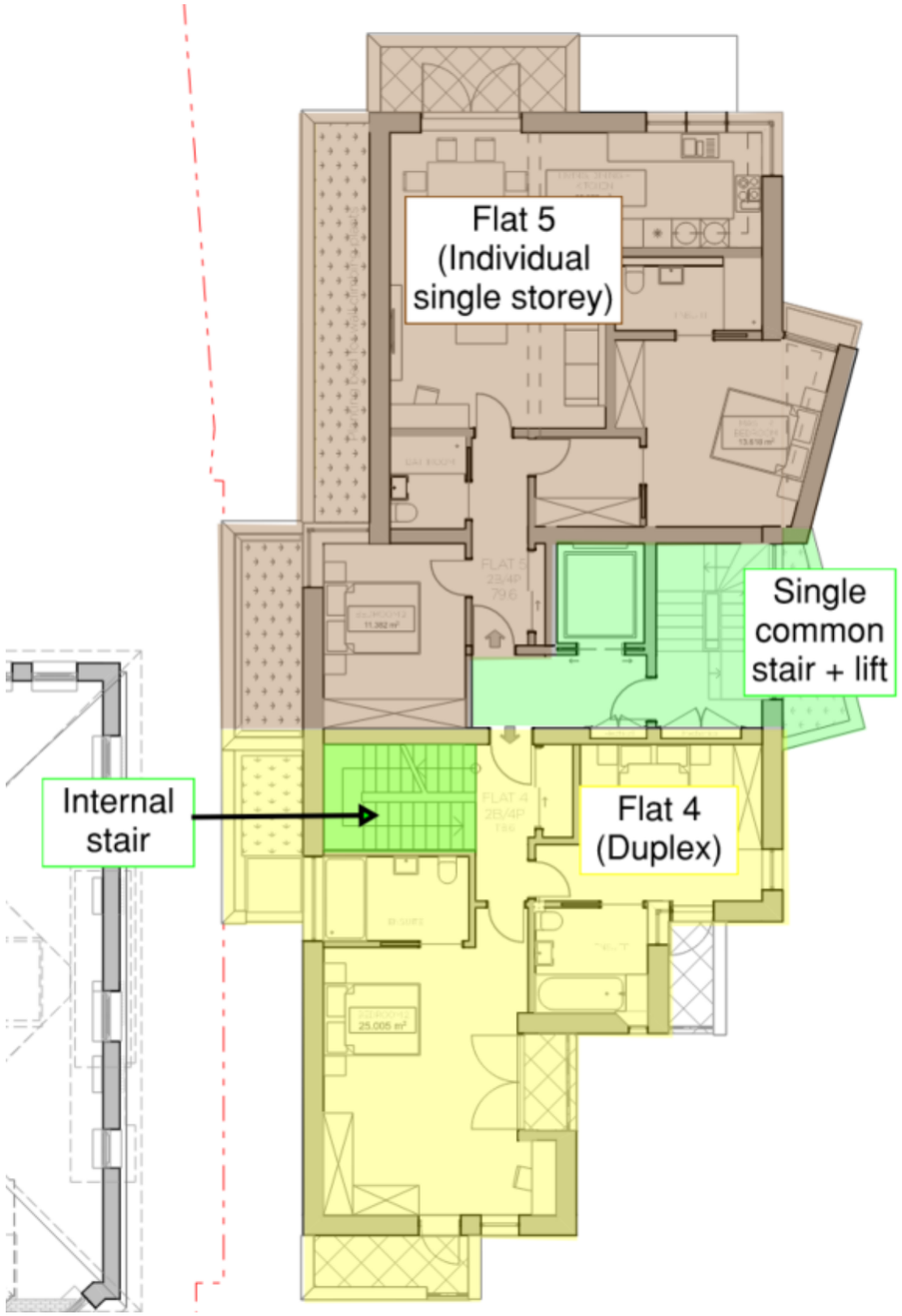


Figure 3 - Indicative arrangement of the block of flat at Second Floor

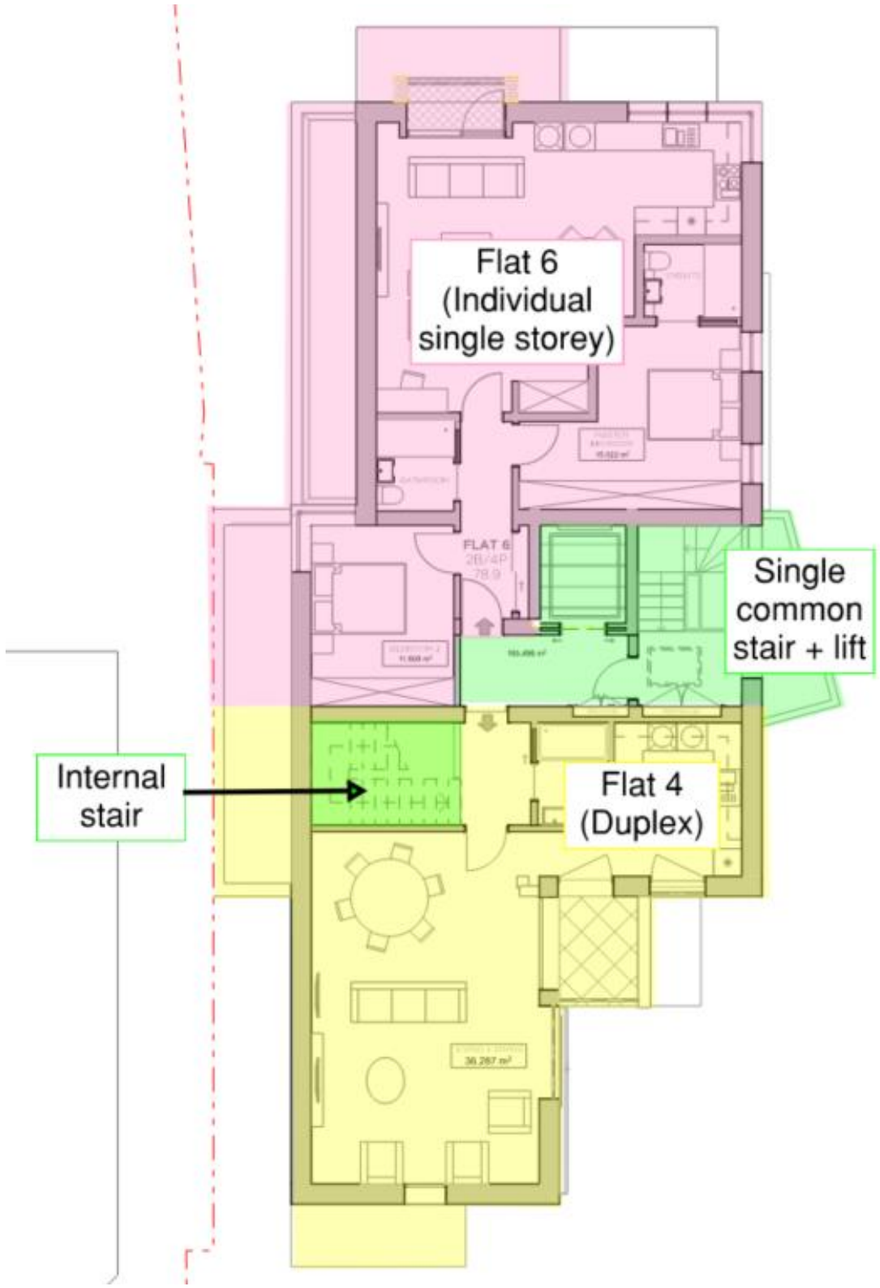


Figure 4 - Indicative arrangement of the block of flat at Third Floor

2. ACTIVE FIRE SAFETY SYSTEMS

2.1 Means of detection and alarm

2.1.1 The fire detection and alarm system requirements across the development are summarized in Table 2.

Table 2 -Minimum fire detection and alarm system

Accommodation	Minimum requirements
Residential Flats	Flats should be provided with a minimum of a Grade D, Category LD2 detection and alarm system, designed and installed in accordance with BS 5839-6 [2]. A Grade D1 system is recommended for rented units, while owner occupied units should be provided with a Grade D2
Residential communal corridors	L5 system conform to BS 5839-1 [5]. The purpose of this system is to activate the smoke ventilation systems within the communal areas only, i.e. it will not provide an audible alarm within the building. It is recommended that the detector head spacing for the L5 system within the corridors is in accordance with the recommendations for a category L4 system.

2.2 Automatic suppression system

2.2.1 The residential block of flats has a top floor height of 8.7m, which is below the 11m threshold and therefore a sprinkler system is not required. This is in accordance with the latest ADB Vol 1 recommendations.

2.3 Smoke ventilation systems

2.3.1 Based on ADB Vol 1, the communal staircase within the block of flats shall be provided with a 1.0m^2 AOV at the head of the stairway.

2.3.2 In accordance with ADB Vol 1, a free area vent of 1.5m^2 to each lobby is not required as the travel distance from the furthest flat to the common stair does not exceed 4.5m.

2.4 Emergency lighting

2.4.1 Emergency lighting (within the common areas only) shall be installed to provide temporary illumination in the event of failure of the primary power supplies to the normal lighting system. As part of the emergency lighting system, escape lighting will be provided to ensure the escape routes are illuminated at all material times. Adequate artificial lighting will be provided in all common escape routes and will be of a sufficient standard to enable persons to see to escape.

2.5 Fire safety signage

2.5.1 Fire safety signs will be installed where necessary (common areas only) to provide clear identification of fire precautions, fire equipment and means of escape in the event of fire. All parts of the development will be fitted with appropriate fire safety signage to comply with The Health and Safety (Signs and Signals) Regulations 1996 [3], i.e. signage to be specified in according to BS ISO 3864-1 [4], BS 5499-4 [5] and BS 5499-10 [6].

2.6 Emergency (life-safety) power supplies

2.6.1 All life-safety systems shall be provided with robust power supplies in accordance with BS 8519 [7].

2.6.2 The following fire safety systems shall comply with their respective British Standards regarding secondary power supplies:

- Emergency lighting and signage;
- Automatic fire detection and alarm system;
- Automatic smoke ventilation systems; and
- Evacuation lift

2.6.3 There must be a minimal delay in change over if the main power fails and it must occur automatically.

3. MEANS OF WARNING AND ESCAPE

3.1 Evacuation philosophy

3.1.1 A 'stay-put' (also known as 'defend-in-place') strategy will be implemented in all residential flats, whereby, in the event of fire, only the unit of fire origin will receive a signal to evacuate. Further evacuation of other units may be enacted by the fire and rescue service, as needed depending on the development of the fire.

3.2 Horizontal means of escape (MOE) – Individual single storey flats (Flats 2, 3, 5 & 6)

3.2.1 Flats shall be provided with a protected internal hallway that achieves at least 30minutes fire resistance. All rooms (with the exception of bathrooms) will have direct access to the hallways. Bathrooms may be included within the fire rated enclosure of the protected entrance hall.

3.2.2 The flats shall be separated from the common protected stair via a protected lobby. As the travel distance within communal corridor is limited to 4.5m, smoke ventilation may be omitted from this space in accordance with Diagram 3.9 of ADB Vol 1 2019.

3.2.3 The protected lobby provides access into the protected stair that serves all four storeys of the building. The protected stair discharges directly to outside.

3.2.4 Only low risk risers (e.g. water drainage risers) are permitted within the stair. Mechanical risers may be permitted in the stair, subject to agreement from the building control body.

3.2.5 The travel distance limits applicable within different parts of the block of flats are summarised in Table 3 below.

Table 3 - Travel distance limits

Part of the building	Single direction limit	Multi-direction
Single storey flat – Protected entrance hall (1)	9 m	n/a
Common lobby (ventilated)	7.5m	n/a
Common lobby (Unventilated)	4.5m	n/a
Notes: 1) Cooking facilities should be located away from the flat entrance door and the internal escape route. It is recommended that at least 1.8m is provided between cooking facilities and internal escape routes.		

3.3 Horizontal means of escape (MOE) – Duplex flats (Flats 1 & 4)

3.3.1 Duplex flats will feature an internal stair that provides egress from the upper storey. The stair enclosure will be separated from the rest of the flat accommodation by 30 minutes fire resisting construction.

3.3.2 The internal stair within Flat 4 has an exit that discharges directly into the protected communal lobby on the second floor. Therefore, no further escape provisions are necessary.

The internal stair within Flat 1 discharges into the living area and not to the communal lobby (or outside). Accordingly, should the upper storey of Flat 1 not have access to the communal stair on the first floor, escape windows should also be provided from each bedroom.

3.3.3 Emergency escape windows shall adhere to the following provisions:

- Have an unobstructed area of minimum 0.33m^2, with a minimum height and width of 450mm;
- The bottom of the openable area should be not more than 1100mm above the floor of the room in which is located;
- The ground beneath the window should be clear of any obstruction and should be of a size and material that is suitable for supporting a ladder;

3.3.4 The means of escape provisions from each storey are depicted in Figure 5 to Figure 8.

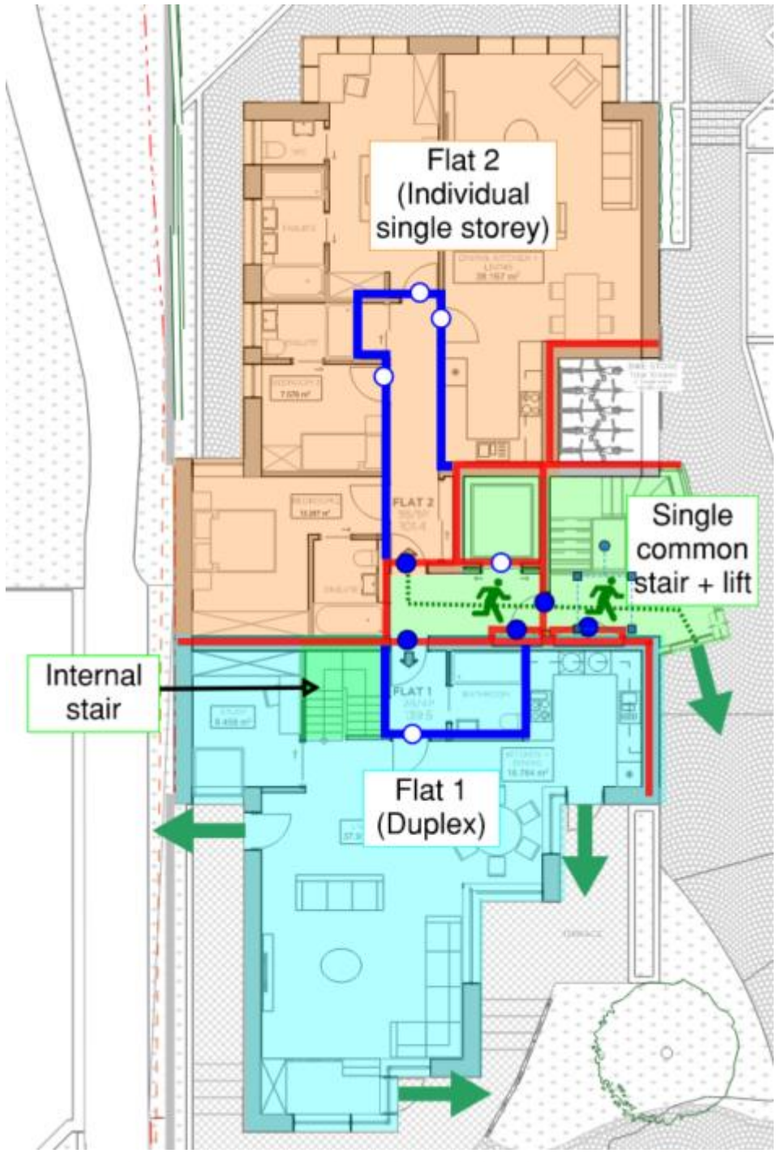


Figure 5: Indicative Horizontal MOE at Ground Floor layout

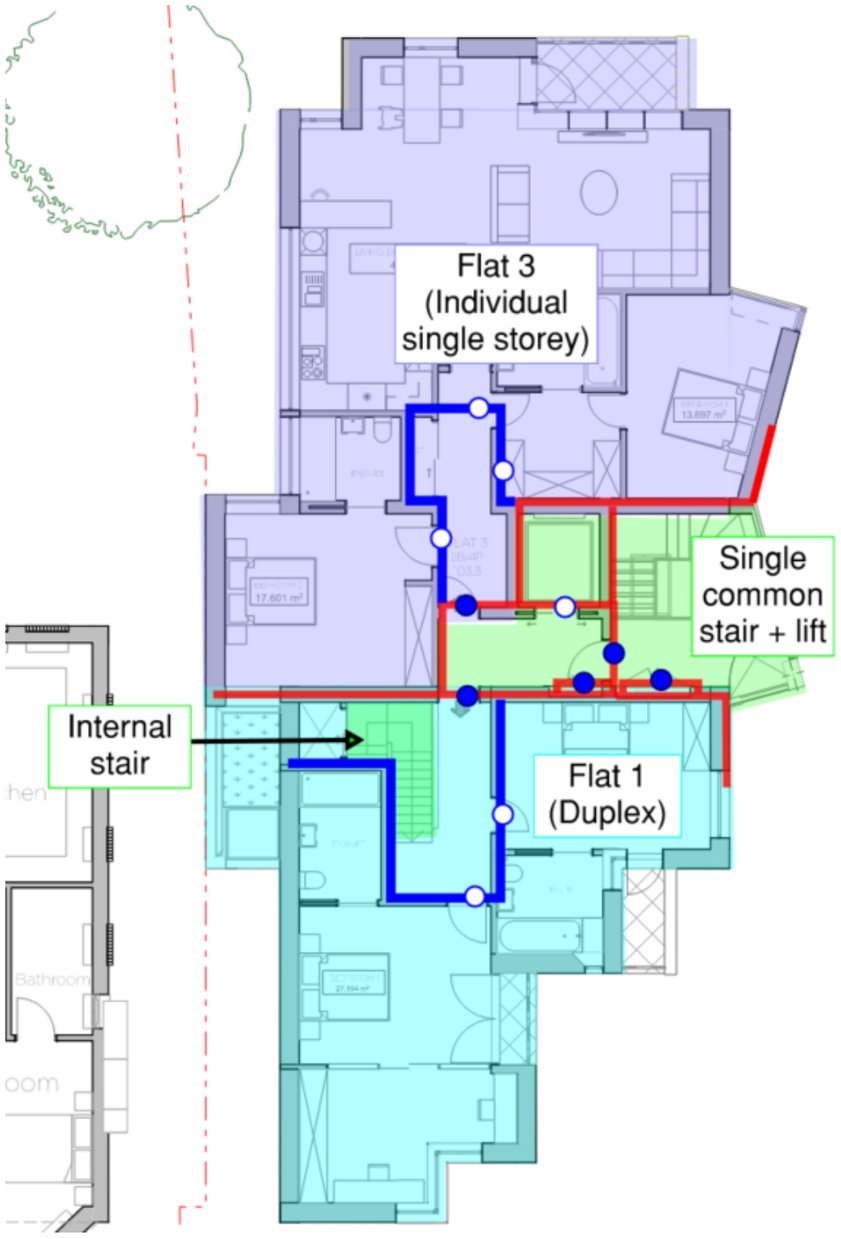


Figure 6: Indicative Horizontal MOE at First Floor layout

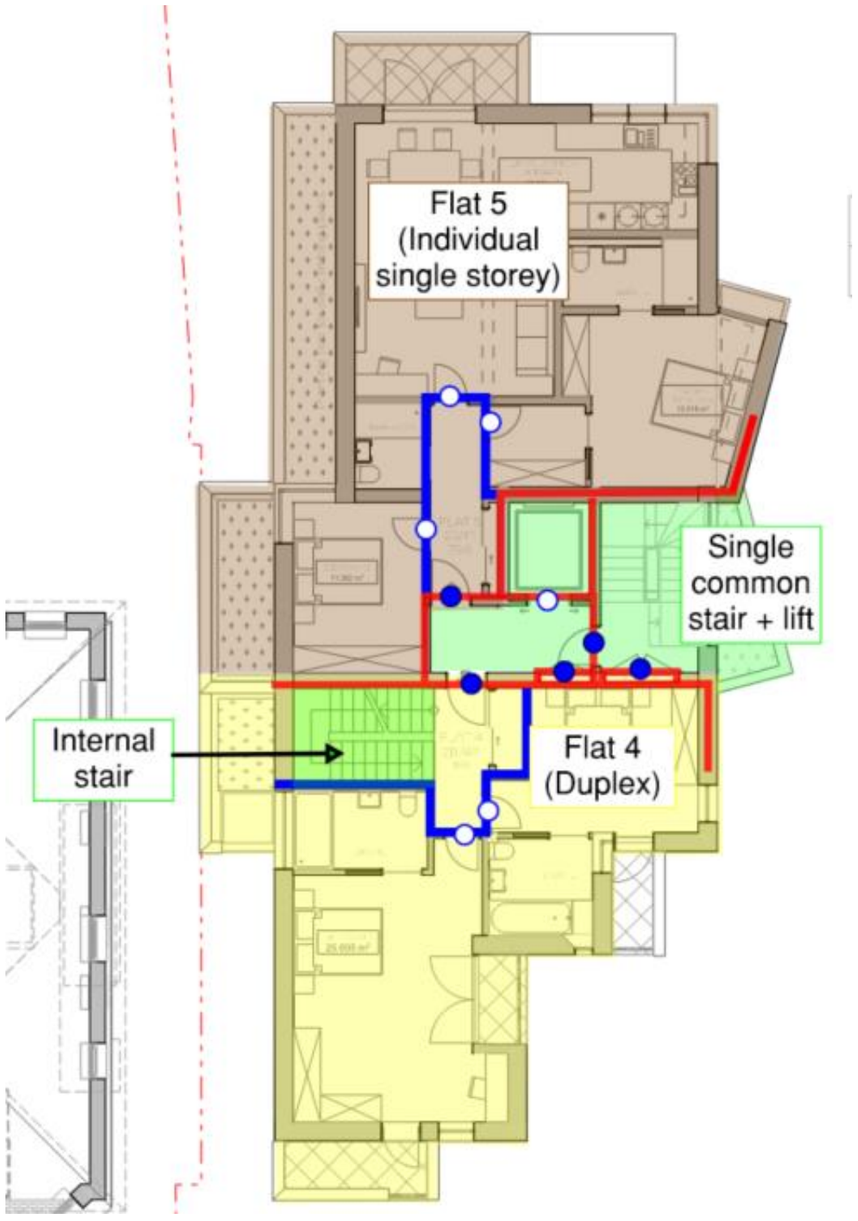


Figure 7: Indicative Horizontal MOE at Second Floor layout

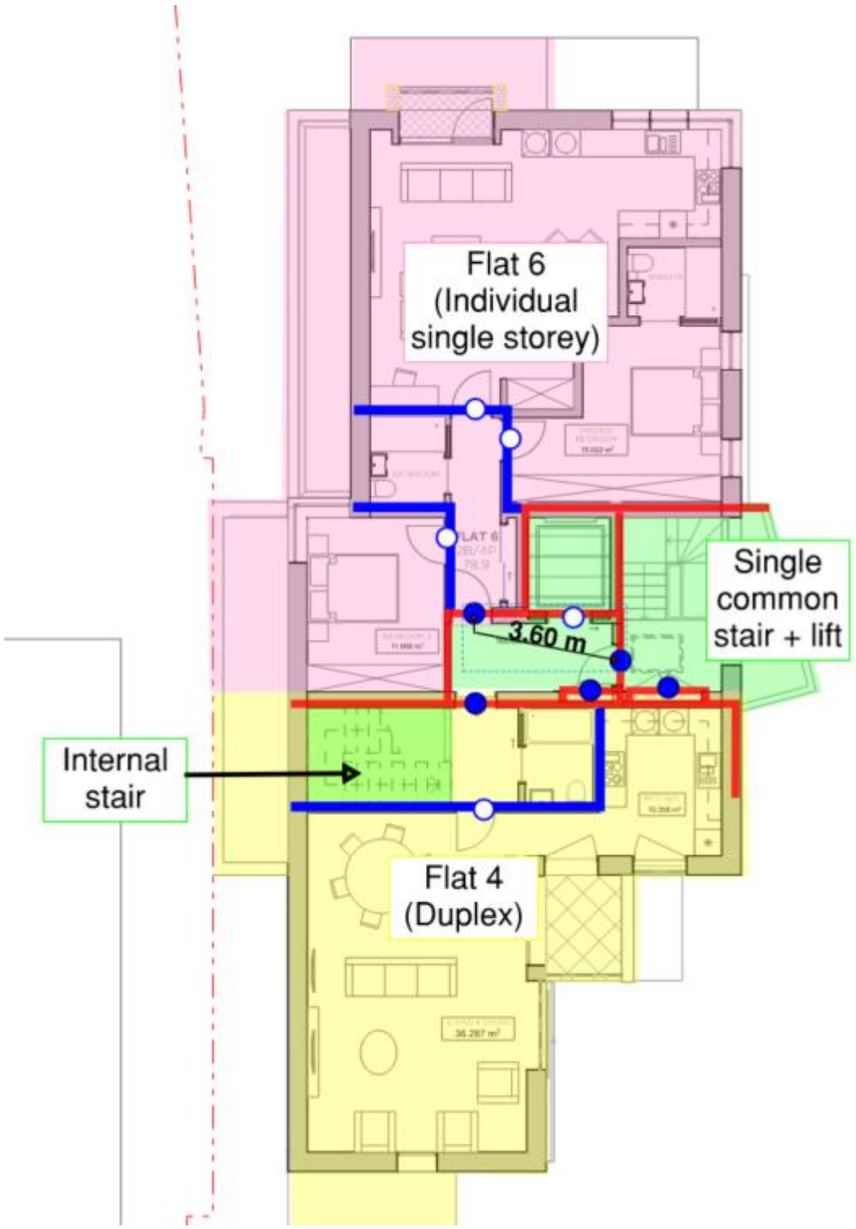


Figure 8: Indicative Horizontal MOE at Third Floor layout

3.4 Vertical means of escape (MOE) – Individual single storey flats (Flats 2, 3, 5 & 6)

3.4.1 In accordance with ADB guidance, stairs should have a minimum clear width of 750mm. It shall be noted that Approved Document M [8] or Approved Document K [9] may have stricter requirements regarding circulation widths.

3.4.2 The stair width should be kept clear for a vertical distance of 2m. Where the handrails intrude 100mm or less, these can be ignored when assessing the clear width of the communal stair.

3.4.3 Escape stair within blocks of flats should be kept fire sterile.

3.4.4 In accordance with London Plan requirements, the lift within the building shall be constructed as an evacuation lift serving all storeys. The protection to the evacuation lift and it's operation will be further developed at the next stage of the project due to the limited guidance currently available within Part B.

3.4.5 Table 4 summarizes the available escape routes for each flat.

Table 4: Vertical means of escape via doors and stairs

Floor Level	Flat Reference	Means of escape
Ground Floor	Flat 1	Three external doors from the apartment
	Flat 2	Via the common stair to outside
First Floor	Flat 1	Internal stair & common stair / escape windows
	Flat 3	Common stair
Second Floor	Flat 4	Common stair
	Flat 5	Common stair
Third Floor	Flat 4	Internal stair
	Flat 6	Common stair

3.5 Escape beyond final exits

3.5.1 Travel beyond the building final exit must be away from the building, towards a place of safety, and not be jeopardised by unprotected openings of the building. In general, the building should be provided with escape routes, upon exiting the building that are either directly away from the building or alternate paths along the building façade.

3.5.2 Where the external escape route continues in a single direction along the façade, the external wall adjoining the escape route should have a minimum of 30 minutes fire resistance (integrity and insulation).

4. PASSIVE FIRE PROTECTION

4.1 Internal wall and ceiling linings

4.1.1 All wall and ceiling linings within the building should meet the recommendations of Section 4 of ADB when tested under the European Classifications (in accordance with BS EN 13501-1 [11]) as summarised in Table 5.

Table 5 – Surface spread of flame requirements

Location	Euro Class
Small rooms ≤ 4m²	D-s3, d2
Other rooms	C-s3, d2
Circulation spaces (within dwellings)	C-s3, d2
Circulation spaces (communal)	B-s3, d2

4.2 Structural fire resistance

4.2.1 The required period of fire resistance of the structural elements has been based upon the recommendations in Table B4 of ADB.

4.2.2 The block of flats shall have a minimum structural fire resistance of 60 minutes fire resisting walls.

4.2.3 If a structure with lower fire resistance supports or provides stability to another element of structure, then the protection to the supporting structure should be at least the same as the structure it is supporting.

4.3 Compartmentation and fire-resisting construction

4.3.1 All floors within the block of flats are required to be built as compartment floors and should achieve at least the same fire resistance as the structure of the block.

4.3.2 All flats should be constructed as 60-minute compartments.

4.3.3 Protected entrance halls are to achieve 30 minutes fire resistance. Bathrooms may be included within the protected entrance hall due to their inherent low risk (i.e. wet environment and low level of combustibles).

4.3.4 All shafts (e.g. service risers, shafts) are to be constructed as protected shafts achieving the same fire resistance as the structure.

4.3.5 Party walls separating buildings shall achieve at least 60 minutes fire resistance irrespective of the height of the building.

4.3.6 One side of external walls forming re-entrant corners should be fire rated for a distance of at least 1.8m. Two re-entrant corners are formed between the flat and the common lobby as shown in Figure 9.

4.3.7 The external elevation of Flat 1 that is adjacent to the stair will be protected with 60 minutes fire resistance (from inside to outside). This is to protect evacuees who are required to continue their escape within close proximity of the flat once they are outside of the building.

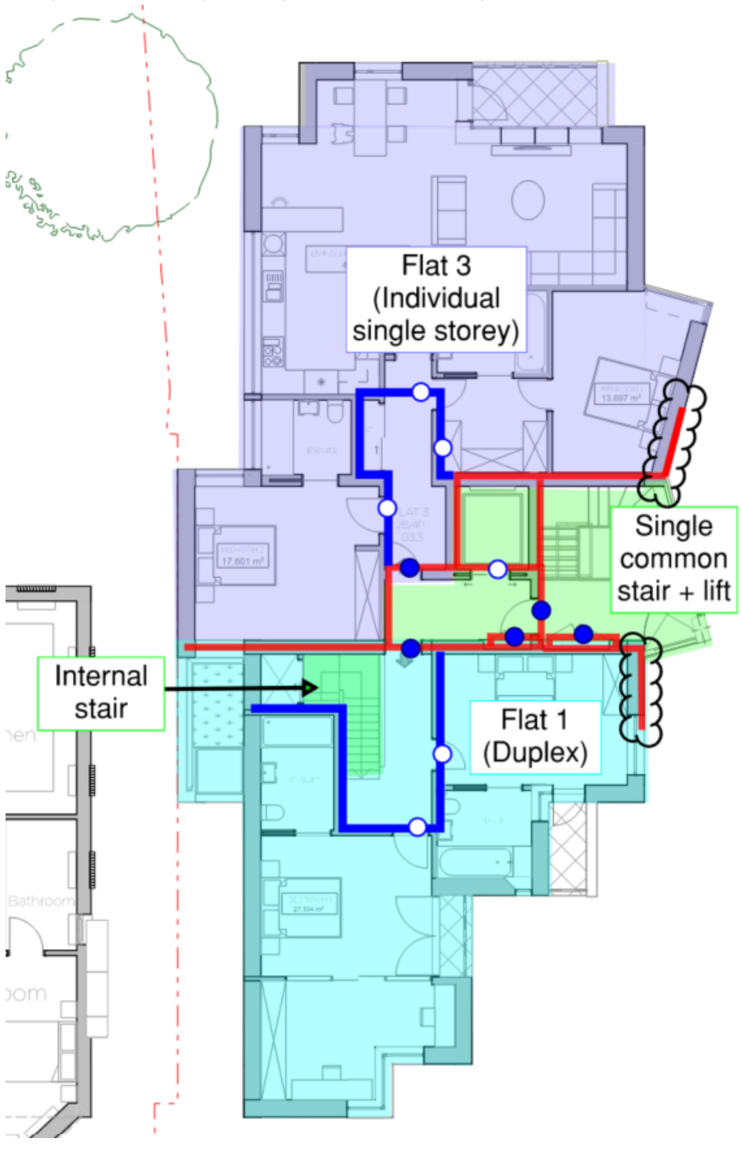


Figure 9: External walls with re-entrant corner highlighted in black

4.3.8

4.4 Fire doors

4.4.1 Fire doors should be in accordance with the recommendations of Table 12 in BS 9991.

4.4.2 Fire door assemblies shall comply with:

- BS 476-22 [12] or BS EN 1634-2 [13] for fire resistance; and where applicable,
- BS 476-31 [14] or BS EN 1634-3 [15] for smoke leakage.

Table 6 - Fire doors

Position of Door	Tested to BS 476-22	Tested to BS EN1634-2
Enclosing a communal protected stair	FD 30 S	E 30 S_a
Enclosing a protected shaft / riser	FD 30 S	E 30 S_a
Enclosing an internal protected stairway of a dwelling	FD 30	E 30
Flat entrance doors	FD 30 S	E 30 S_a
Doors to internal protected entrance halls	FD30	E 30

4.5 Fire-stopping and penetrations through fire-resisting construction

4.5.1 Fire-stopping should be provided at the junction of fire-separating walls and external walls in order to maintain the fire resistance period of fire-separating walls, and thereby prevent a fire from travelling around the junction and into the neighbouring space. Penetrations through lines of fire-resisting separation should be fire-stopped using a system which will achieve the same fire resistance rating as the penetrated wall or floor.

4.6 Cavity barriers and concealed spaces

4.6.1 Cavity barriers should have a fire resistance rating of at least 30 minutes for integrity (E) and 15 minutes for insulation (I). In general, cavity barriers should be at 20 m centres, and in line with compartment wall and floors within cavities.

4.6.2 Cavity barriers provided around openings within the external wall may be formed of:

- steel at least 0.5mm thick or timber at least 38mm thick; or
- polythene-sleeved mineral wool, or mineral wool slab under compression when installed cavity; or
- calcium silicate, cement-based or gypsum-based boards at least 12mm thick.

5. EXTERNAL FIRE SPREAD

5.1 External wall construction – Buildings under 18m

5.1.1 Residential buildings with a height less than 18m are not classified as relevant building under Regulation 7(4).

5.1.2 The external walls within buildings less than 18m should achieve either of the following:

- Meet the performance criteria given in BRE report BR 135 for external wall using full-scale test data from BS 8414-1 [16] or BS 8414-2 [17]; or
- Follow the provisions given below:
  - External surfaces should meet the recommendations detailed in Table 7
  - Cavity barriers should be in accordance with Section 4.6.

5.1.3 The external surface of the walls should comply with Table 7 . The provisions in Table 7 apply to each wall individually in relation to its proximity to the relevant boundary.

Table 7 External surface of walls

Building height	Less than 1m from boundary	More than 1m from boundary
Less than 18m	Class B-s3, d2 or better (1)	No specific provisions, but they should be designed to not promote fire spread.
Note: 1) Profiled or flat steel sheet at least 0.5mm thick with an organic coating of no more than 0.2mm thickness is also acceptable.		

5.1.4 The above recommendations are the minimum expectations of ADB for a building of this height. Nevertheless, it would be recommended that lower risk cladding and insulation materials (being Class A1 or Class A2-s1, d0 to BS EN 13501-1) be preferred in the first instance, considering the presence of sleeping occupants, which relies on the prevention of rapid fire spread between various areas of the building.

5.2 Roof coverings

5.2.1 The relevant test and classification standards for the external fire performance of roof systems are BS 476-3 [18] (National Class) and BS EN 13501-5 [19] (European Class).

5.2.2 Table 8 below summarises the separation distances from the boundary according to the type of roof covering as described in section 12 of ADB.

Table 8 – Limitations on roof coverings

Distance from relevant boundary	National Class	AA, AB or AC	BA, BB or BC	CA, CB or CC
	European Class	B_{ROOF}(t4)	C_{ROOF}(t4)	D_{ROOF}(t4)
Less than 6m		✓	×	×
At least 6m		✓	✓	×
At least 20m		✓	✓	✓

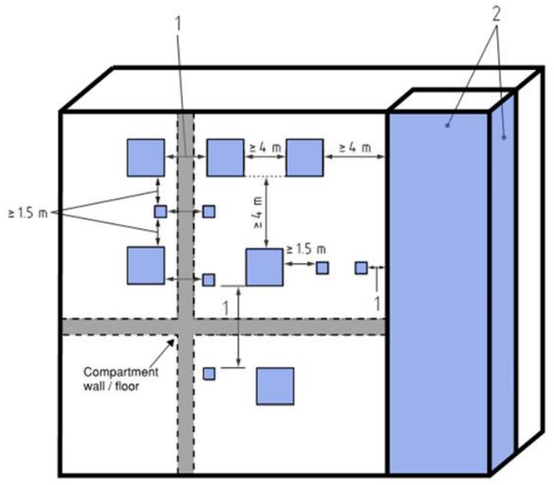
5.3 Space separation and unprotected areas of the façade

5.3.1 Should a fire occur in a building, heat will radiate through non-fire resisting openings in the external walls. This heat can be enough to set fire to nearby buildings. In order to reduce the chance of this occurring, the Building Regulations place limits on the area of the external elevation with no fire resistance, known as the unprotected area.

5.3.2 The relevant boundaries are the reference point at which the potential for fire spread, being:

- the site boundary;
- a notional boundary created on the centreline of an adjacent carriage way; or
- a notional boundary created midway between this building and the nearest adjacent building.

5.3.3 In accordance with BS 9991 guidance, only small unprotected areas in an otherwise protected façade do not contribute to the extent of unprotected area. These are shown in Figure 10, where the small openings cannot be bigger than 0.1m² and the larger openings cannot be bigger than 1.0m².



Key

1 Unrestricted
2 External wall of shaft that is enclosed by a minimum of 60 min fire resistance from the accommodation side

Figure 10 -Exclusion from unprotected area calculations

5.3.4 It should be noted that where an external wall is within 1.0m from the relevant boundary, that external wall shall have 0% unprotected area and is required to have the same fire resistance as the structure of the building. Only small unprotected areas are in accordance with Figure 10 are not required to be fire rated.

5.3.5 The external fire spread assessment will be carried out in the detailed fire strategy report.

6. ACCESS AND FACILITIES FOR THE FIRE AND RESCUE SERVICE

6.1 Vehicle access to and around the site

6.1.1 FRS vehicle access is provided via Netherhall Gardens Road, with closer approach subsequently achieved via the internal roads to the property.

6.1.2 FRS access to the four-storey block of flats shall be provided within 45m hose laying distance (measured on a route suitable for laying hose) to any point within any flat. Otherwise, the block of flats shall be fitted with dry riser mains and FRS vehicle access shall be provided within 18m and within clear sight of dry riser inlets. It is understood that hose coverage to all parts of the building can be achieved within the 45m limit and therefore a dry rising mains is not required.

6.1.3 Fire and rescue service appliances should not reverse more than 20m, otherwise, suitable turning facilities will be provided.

6.1.4 As the topmost storey height of the building is less than 18m above ground, a firefighting shaft is not stipulated under ADB Vol 1.

6.1.5 The access route requirements are provided in Table 9 are generic recommendations for a pump-type appliance taken from Table 13.1 of ADB Vol 1:2019. Fire and rescue service appliances are not standardised, therefore vehicle access provision should be discussed and agreed with the local fire and rescue service to ensure their vehicle complies with the parameters listed in Table 9.

6.1.6 The detailed vehicle access provisions for firefighting appliances will need to be developed as part of the wider masterplan design and discussed and agreed with the local fire and rescue service.

Table 9 -Typical pump-type firefighting appliance access requirements

Minimum access route specification	Dimension
Width between kerbs	3.7 m
Width between gateways	3.1 m
Turning circle between kerbs	16.8 m
Turning circle between walls	19.2 m
Clearance height	3.7 m
Carrying capacity	14.0 tonnes

6.1.7 Figure 11 indicatively illustrate fire service access routes and fire service access to the building.

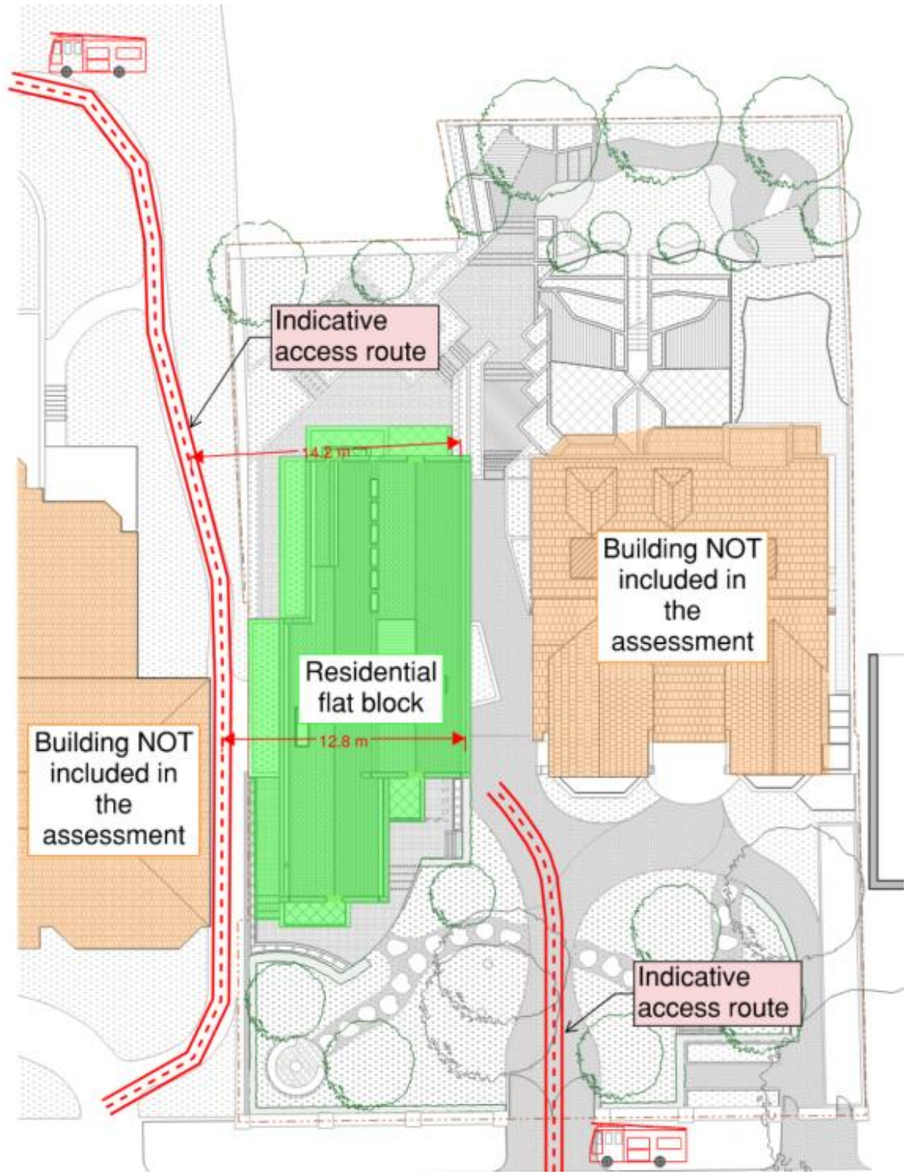


Figure 11 Indicative site wide fire track access routes

6.2 Access into and through the building

6.2.1 Access across the development shall be provided at ground floor level. Access to the residential upper floors shall be facilitated via a protected stair.

6.2.2 All doors giving access to the interior of the building will have a minimum width of 750mm.

6.2.3 A dry riser should be fitted within the residential staircase of the block of flats if the hose laying distance from the FRS parking position to the furthest point within the block of flats exceeds 45m hose laying distance.

6.2.4 Should a dry riser be installed, this should be in accordance with BS 9990. Dry riser outlet should be located on the full landing of the stairway at each level. The maximum permitted horizontal pipe run between the dry riser inlet and outlet is limited to 18m.

6.3 Water supplies

6.3.1 Hydrants will be required in the vicinity of the building to support firefighting operations.

6.3.2 If the building is more than 90m from an existing hydrant, hydrants should be provided within 90m of the entry point to the building and not more than 90m apart. Where a dry-rising main is provided, the hydrants should be provided within 90m of dry riser inlet.

6.3.3 If fire hydrants are to be installed, they should be included as part of a ring fire main system. They should preferably be sited immediately adjacent to roadways or hard-standing facilities suitable for fire and rescue service appliances. To ensure that they remain usable during a fire, they should be sited with consideration of the effect that falling debris and other possible occurrences during a fire might have on the continuing viability of the location and as such should be not less than 6m from the building.

6.3.4 A water supply capable of providing a minimum of 1,500 litres per minute at all times is recommended. Water supplies will be designed and installed in accordance with BS 9990.

6.4 First-aid firefighting

6.4.1 First-aid firefighting provisions should be assessed and provided as part of the fire risk assessment for the development, including consideration for the day-to-day management of these provisions.

In general, fire points should be located within the ancillary areas presenting a significant fire risk and to ensure coverage of at least one fire point for every 200m^2 of floor area. The type and size of extinguisher(s) at each fire point should be chosen in accordance with the guidance given in BS 5306.

7. BIBLIOGRAPHY

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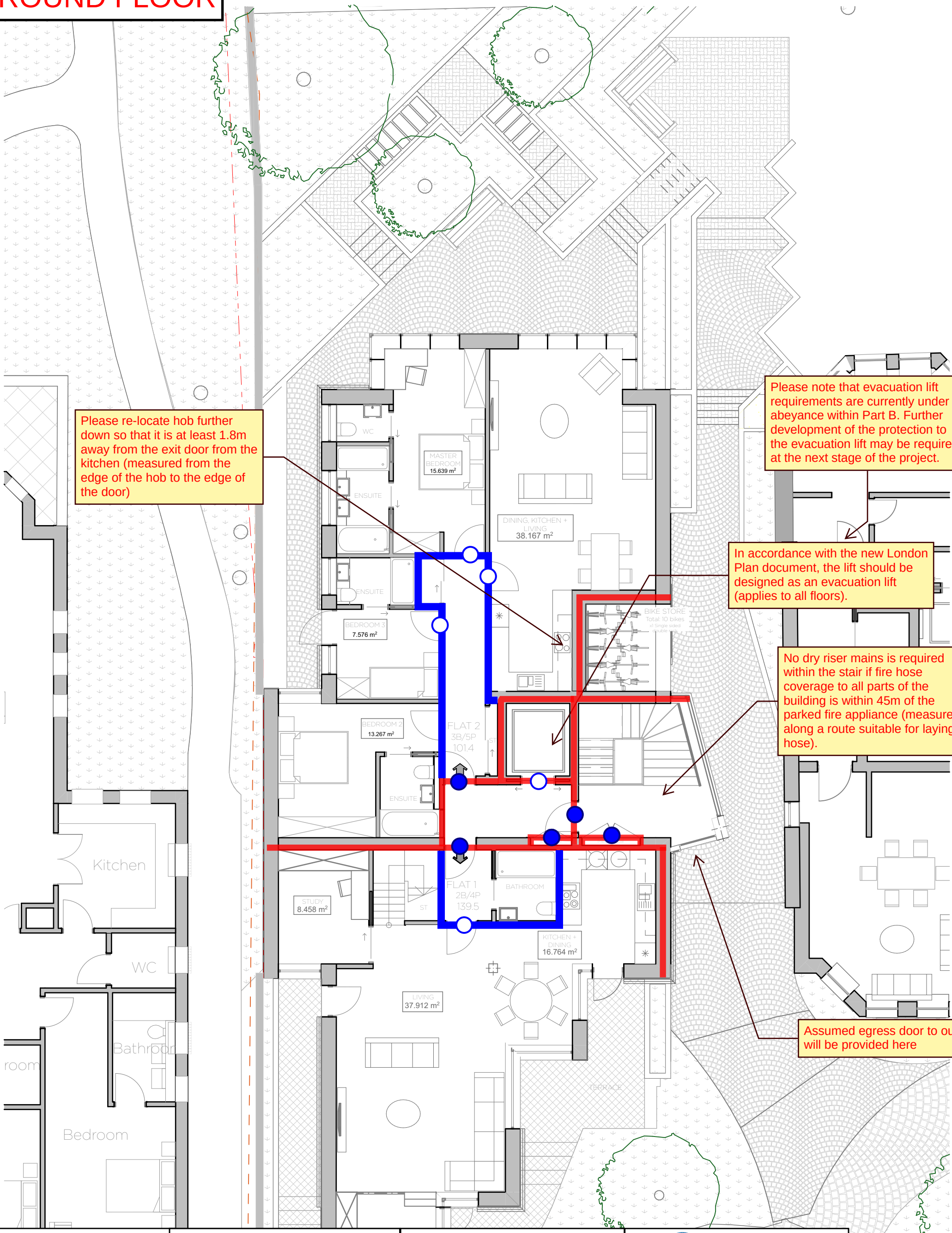
GROUND FLOOR



Fire Resistance			
Rating (Minutes)	Walls	Doors: With Smoke Seals	Doors: Without Smoke Seals
30			
60			
90			
120			

Fire Fighting	
	Hose Distance
	Fire Service Access Road
Dry riser inlet	Dry Riser Inlet
Dry riser outlet	Dry Riser Outlet
H	Hydrant
FFL	Fire Fighting Lift

Notes

1. The structure of the blocks should have at least 60 minutes fire resistance.

2. Open-plan flats are required to be provided with a sprinkler system conforming to BS 9251:2021.

3. Where flats are provided with a protected entrance hall, the maximum travel distance within the protected entrance hall is limited to 9m.

4. BS 9991 is adopted as the guidance document for the fire strategy

ASHTON | FIRE

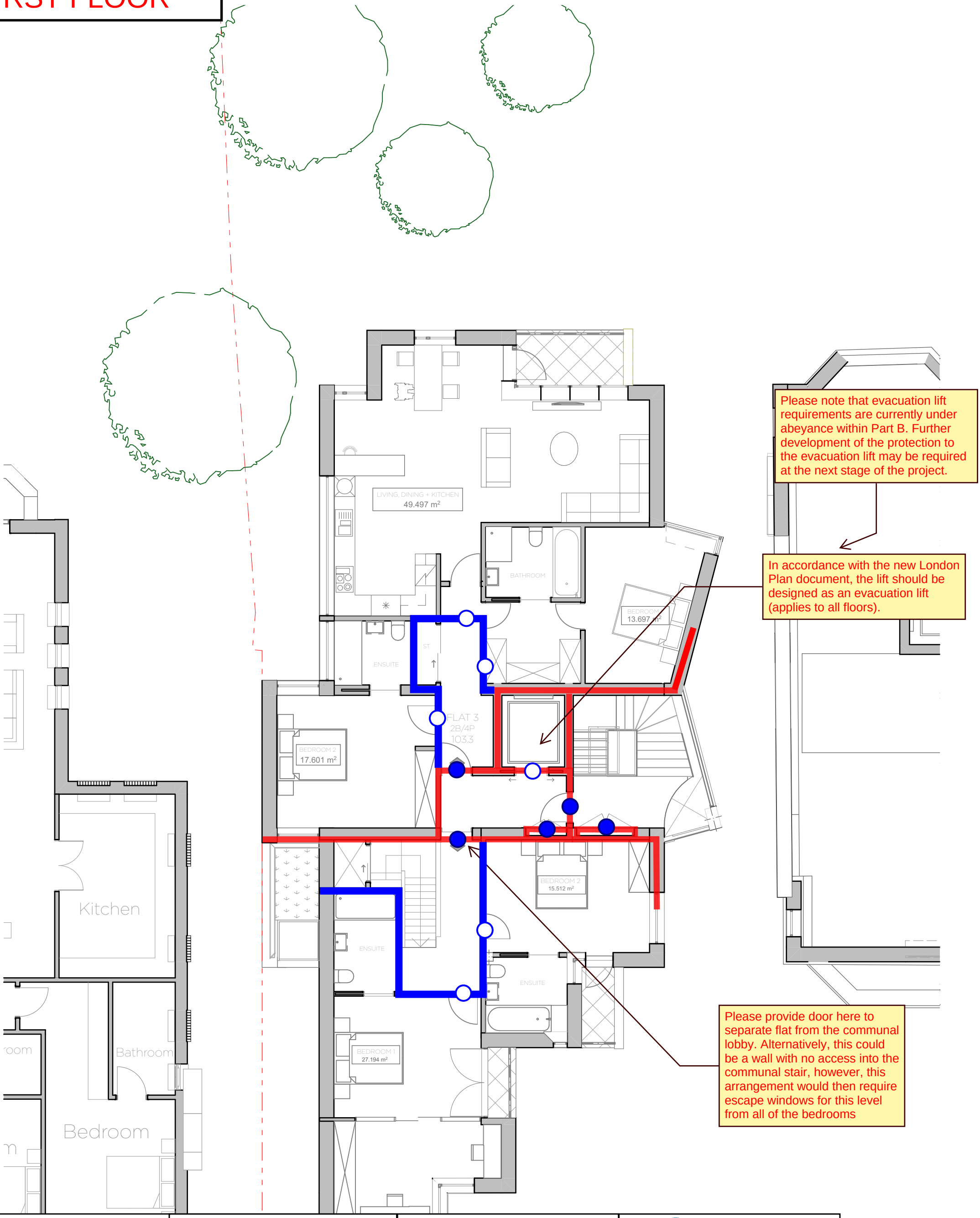
Project Name:
13 Netherhall Gardens

Drawing Title:
FIRE STRATEGY MARK-UPS & COMMENTS

Author:	RM	Date:	05.10.22
Checked:	ASQ	Issue:	02
Project Number:		AF 3302	

e-creo Architecture

FIRST FLOOR



Please note that evacuation lift requirements are currently under abeyance within Part B. Further development of the protection to the evacuation lift may be required at the next stage of the project.

In accordance with the new London Plan document, the lift should be designed as an evacuation lift (applies to all floors).

Please provide door here to separate flat from the communal lobby. Alternatively, this could be a wall with no access into the communal stair, however, this arrangement would then require escape windows for this level from all of the bedrooms

Fire Resistance

Rating (Minutes)	Walls	Doors: With Smoke Seals	Doors: Without Smoke Seals
30			
60			
90			
120			

Fire Fighting

	Hose Distance
	Fire Service Access Road
Dry riser inlet	Dry Riser Inlet
Dry riser outlet	Dry Riser Outlet
H	Hydrant
FFL	Fire Fighting Lift

Notes

1. The structure of the blocks should have at least 60 minutes fire resistance.

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3. Where flats are provided with a protected entrance hall, the maximum travel distance within the protected entrance hall is limited to 9m.

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ASHTON | FIRE

Project Name:
13 Netherhall Gardens

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Author:	RM	Date:	05.10.22
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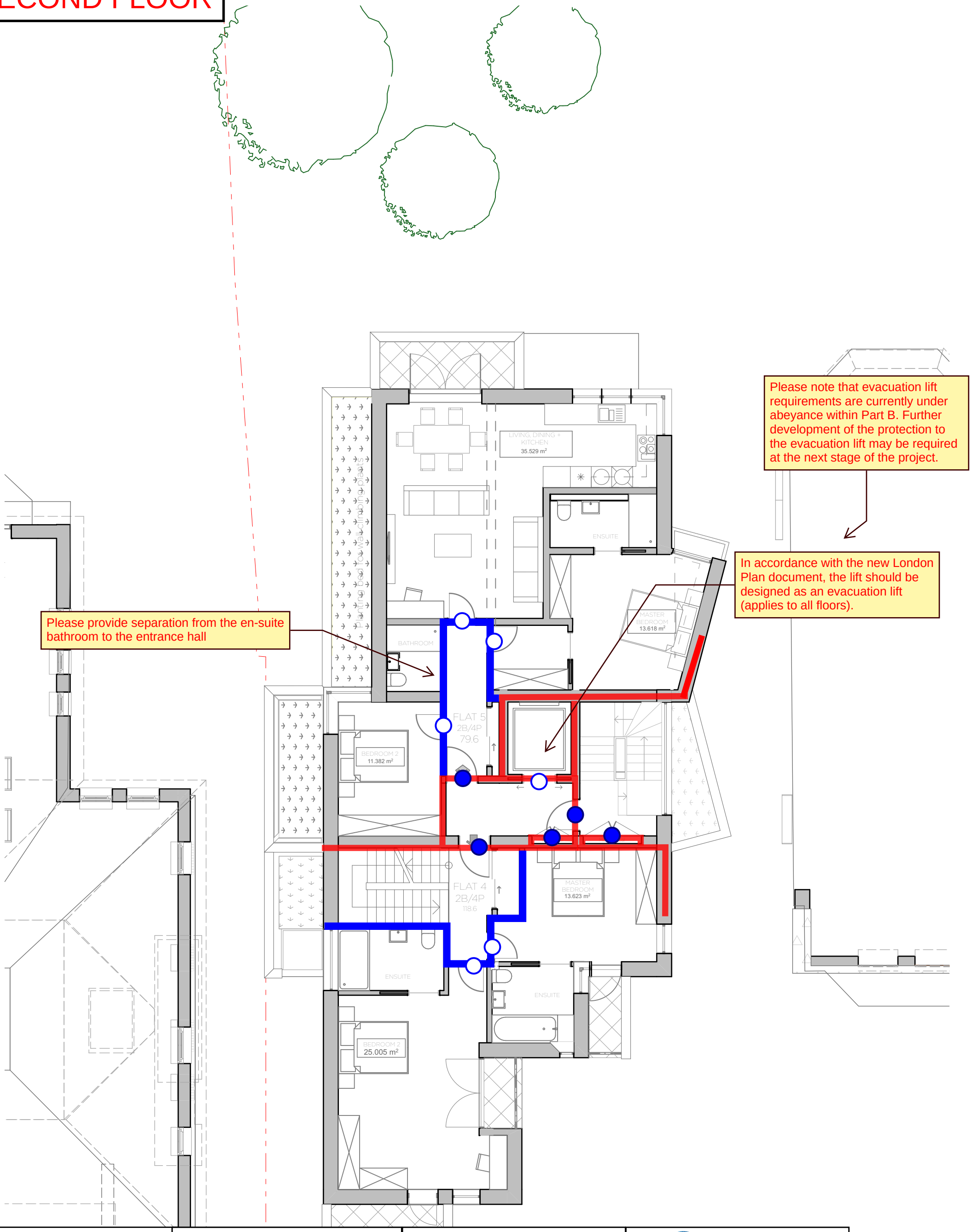
e-creo Architecture

SECOND FLOOR



Please provide separation from the en-suite bathroom to the entrance hall

In accordance with the new London Plan document, the lift should be designed as an evacuation lift (applies to all floors).

Please note that evacuation lift requirements are currently under abeyance within Part B. Further development of the protection to the evacuation lift may be required at the next stage of the project.

Fire Resistance

Rating (Minutes)	Walls	Doors: With Smoke Seals	Doors: Without Smoke Seals
30			
60			
90			
120			

Fire Fighting

	Hose Distance
	Fire Service Access Road
Dry riser inlet	Dry Riser Inlet
Dry riser outlet	Dry Riser Outlet
H	Hydrant
FFL	Fire Fighting Lift

Notes

1. The structure of the blocks should have at least 60 minutes fire resistance.

2. Open-plan flats are required to be provided with a sprinkler system conforming to BS 9251:2021.

3. Where flats are provided with a protected entrance hall, the maximum travel distance within the protected entrance hall is limited to 9m.

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ASHTON | FIRE

Project Name:
13 Netherhall Gardens

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FIRE STRATEGY MARK-UPS & COMMENTS

Author:	RM	Date:	05.10.22
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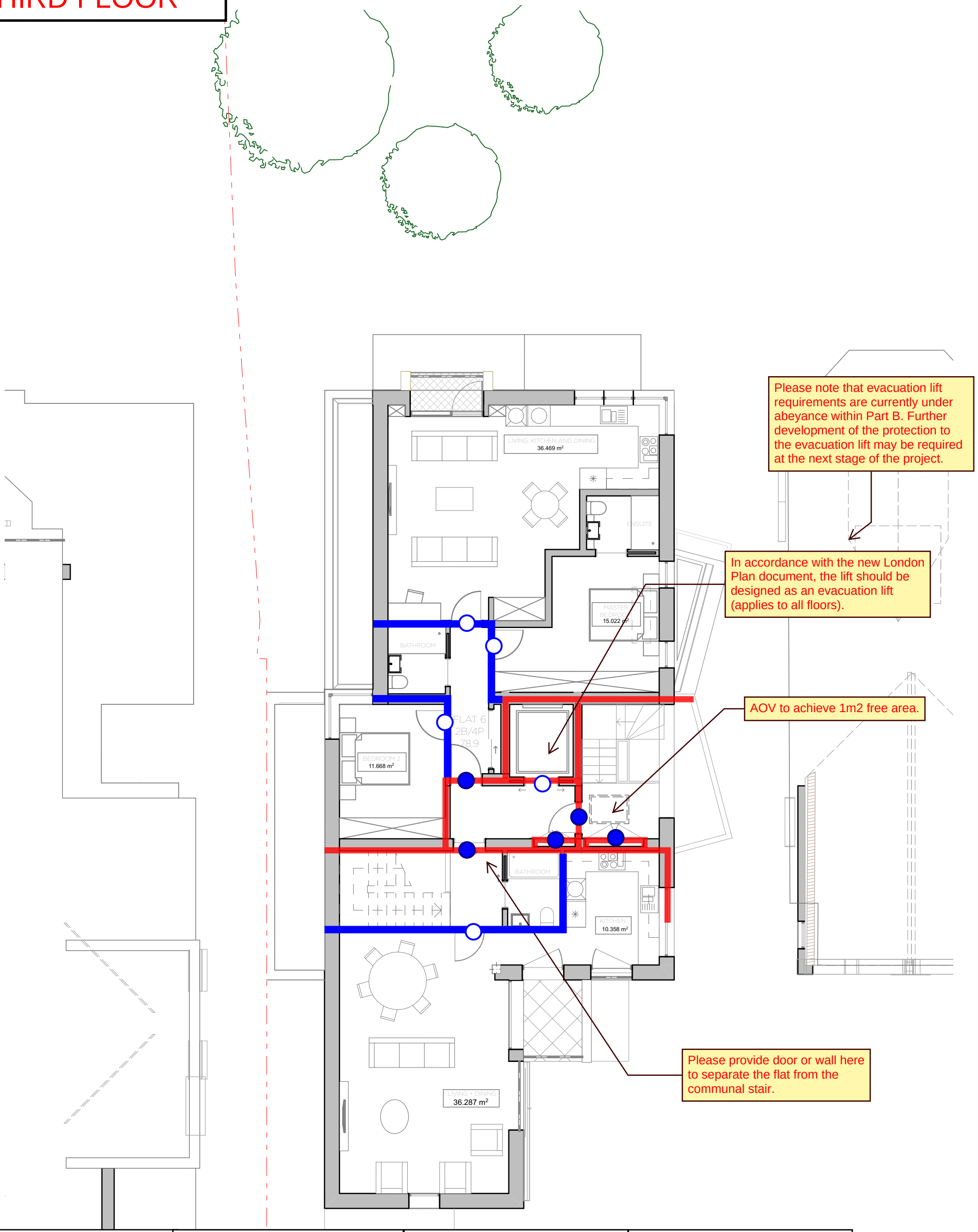
THIRD FLOOR



Please note that evacuation lift requirements are currently under abeyance within Part B. Further development of the protection to the evacuation lift may be required at the next stage of the project.

In accordance with the new London Plan document, the lift should be designed as an evacuation lift (applies to all floors).

AOV to achieve 1m2 free area.

Please provide door or wall here to separate the flat from the communal stair.

Fire Resistance

Rating (Minutes)	Walls	Doors: With Smoke Seals	Doors: Without Smoke Seals
30			
60			
90			
120			

Fire Fighting

	Hose Distance
	Fire Service Access Road
Dry riser inlet	Dry Riser Inlet
Dry riser outlet	Dry Riser Outlet
H	Hydrant
FFL	Fire Fighting Lift

Notes

1. The structure of the blocks should have at least 60 minutes fire resistance.

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ASHTON | FIRE

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13 Netherhall Gardens

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ASHTON | FIRE

With over 140 years' combined experience in fire safety, Ashton Fire engineers have dealt with hundreds of successful fire engineering projects across the UK and worldwide.

Highly qualified as well as well as highly skilled, Ashton Fire is represented on many professional bodies, industrial committees and have a culture of continuous improvement.

Engineering Council

Chartered Members with the Engineering Council

Fire Industry Association

IHEEM Institute of Healthcare Engineering and Estate Management

Institute of Healthcare Engineering and Estate Management Member

Institution of Fire Engineers Member

London Birmingham Oxford Eastbourne Taiwan

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