

FIRE STATEMENT



PROJECT NAME:	47a, 47 & 49 and 49a Lower Mortlake Road	CLIENT:	Westlake Property Limited
PROJECT No:	FE00998	FAO:	Westlake Property Limited
DATE	24 th of July 2024	REVISION	3.0
PREPARED BY	Obo Wanogho BEng (Hons) AIFireE AIFSM Senior Fire engineer	CHECKED BY	James Lee MEng (Hons) CEng MIFireE Director

1. INTRODUCTION

CHPK Fire Engineering (CHPKFE) has been appointed by “Westlake Property Limited (“The Applicant”)” to produce a fire statement to the Proposed Development at 47a, 47&49 and 49a Lower Mortlake Road, Richmond, TW9 2LW (The Site) in London in terms of the London Plan Policy D12 – Fire Safety and D5 Inclusive Design.

The ground floor layout has been revised and as such 47 and 49 Mortlake Road now connect to each other at ground floor level and share the same final exits but do not connect with each other on the upper floor levels. 49a Mortlake Road, is a single studio at ground floor level which does not connect to any of the other buildings. As such for the purpose for this report 47 and 49 Mortlake Road will now be considered the same building and not separate buildings as both buildings do not have independent final exits from each other.

The Proposed Development comprises the construction of a part 1/2/3 storey building (plus lower ground) to provide 14 co-living units (sui generis) and associated internal amenity space at lower ground floor level, with new lower ground level amenity space to neighbouring buildings, and alongside external communal space at ground and lower ground level.

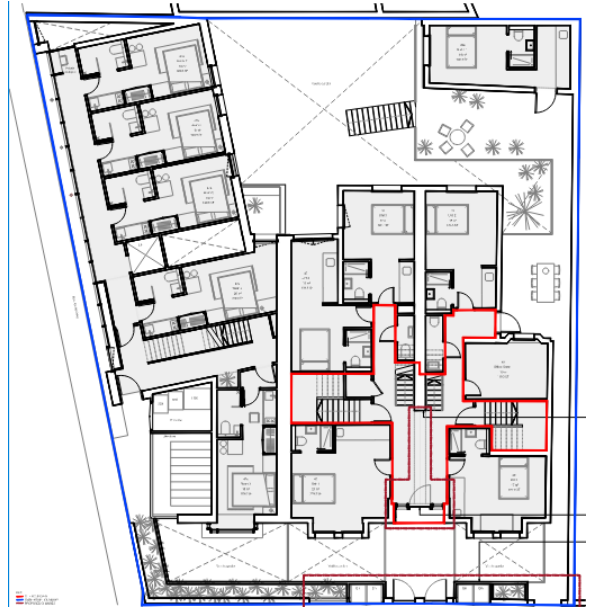
In the proposed scheme there is an external connection between buildings 47 and 49 at lower ground and ground floor level via the garden. All properties are served by a stair with a topmost occupied storey approximately 6.3m above fire access level. There is an accommodation stair that can be accessed from the garden on lower ground floor level from 47a and 47 Mortlake Road that terminates at ground floor level.

The lower ground floors of 47 and 49 consist of shared accommodation space, comprising of a shared kitchen, multi-use rooms (i.e., gym and yoga), workspace, lounge, washing room and plant room. The lower ground floor of 47a comprises two co-living bedroom units, a shared kitchen, multi-use rooms (i.e., gym and yoga), workspace, lounge, washing room, plant room and a bin store for recycling only.

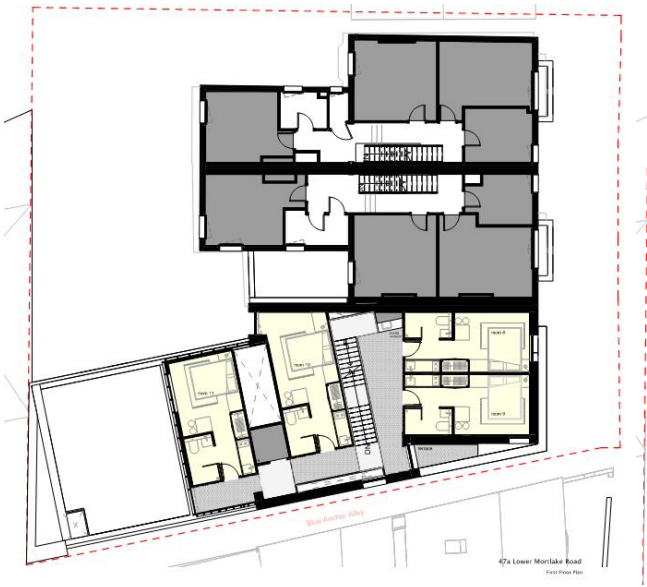
Ground floor level and the upper floor levels consist of co-living accommodation with ‘ancillary (including storage)’ accommodation located within the stair lobby. 49 Mortlake Road consists of an office/storeroom at ground floor level.



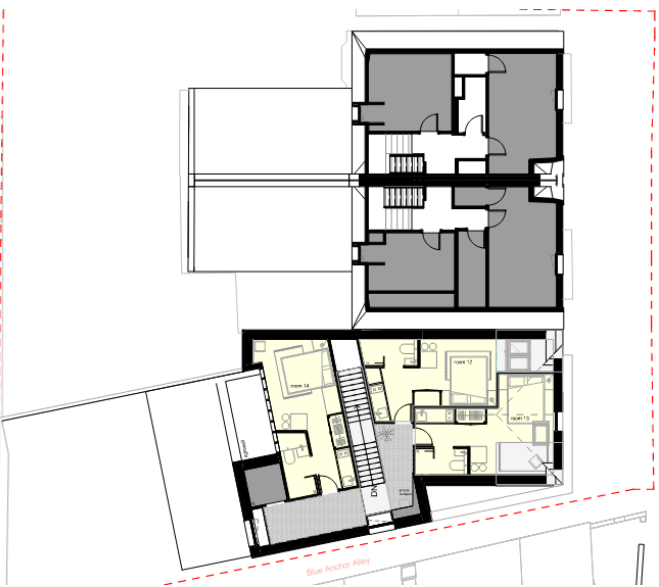
Lower Ground Floor - Plan



Ground Floor - Plan



First Floor Plan Layout



Second Floor Plan Layout

Figure 1: Typical Floor plan layout

2. FIRE STRATEGY

The fire strategy for this development will be developed as the design progresses and designed in accordance with the recommendations in Approved Document B Volume 1 (ADB), the Local Authorities Coordinators of Regulatory Services (LACORS) guidance on fire safety provisions for certain types of existing housing (2008), and the relevant British Standards. The fire safety design elements are:

Table 1 Fire strategy summary

FIRE SAFETY DESIGN ELEMENT	DESCRIPTION
Evacuation philosophy	Means of escape from all buildings will be based on a total evacuation strategy in accordance with section 7.6 of the LACORS fire safety guide.
Fire detection and alarm system	<p>The fire detection and warning system in 47a and 47&49 Mortlake Road will be installed and designed in accordance with BS 5839 Part 6. As all bedsits (studio rooms) pertain cooking facilities within a shared kitchen, per figure D8 of the LACORS fire safety guide the fire detection system should be designed as mixed system consisting of:</p> <ul style="list-style-type: none"> • Grade A: LD2 coverage in the common areas, office/storerooms and heat detectors in bedsits (interlinked) • Grade D LD1 smoke alarm in each bedsit to protect the sleeping occupants (non-interlinked) <p>Note that as there is a shared kitchen at basement level, there should be interlinked smoke detectors located in each bedsit;</p> <ul style="list-style-type: none"> • Heat detectors located in each kitchen; and • additional interlinked smoke detectors located in any cellar. <p>An alarm in any other areas besides the bedsits will signal simultaneous evacuation of all occupants from the building for 47a, 47 and 49 Mortlake Road.</p> <p>Note that 49a Mortlake Road, is a single storey studio unit with an exit that leads directly to outside. As such this unit has been treated similarly to a small dwelling house. As per ADB Volume 1 – section 1.1, A minimum Grade D2 Category LD3 system should be provided in accordance with the relevant recommendations of BS 5839-6.</p>
Fire- fighting equipment	<p>Fire blanket to the shared kitchen on lower ground floor level, multipurpose fire extinguisher to be provided at each landing level. Conventional lighting to be provided within the common areas (emergency lighting to be provided if the escape route is dark).</p> <p>Note that no fire-fighting equipment is required for 49a Mortlake Road.</p>
Means of escape	<p>Means of escape from 47a Mortlake road from the bedsit units is via deck access that leads to an external stair and directly to a final exit at ground floor level. Note that no further means of escape provisions are required except that the hose laying distance from anywhere in the building to a fire appliance should not exceed 45m. Means of escape meet the requirements outlined in LACORS Fire safety guide.</p> <p>Means of escape from 47&49 Mortlake road from the bedsit units is via the common corridor which leads to a protected stair and onto final exits at ground floor level. Per the prescriptive guidance, for single means of escape the travel distance from a residential unit to a final exit/protected stair should not exceed 7.5m.</p> <ul style="list-style-type: none"> • Travel distances from the workspace, shared kitchen and multi space rooms to the protected stair are less than 18m and as such comply with the prescriptive guidance recommendations. • Travel distances exceed 7.5m at ground floor level from unit 2 and 3 (approximately 18m and 19m) to a final exit. • Travel distances exceed 7.5m at first floor level (approximately 8m from the most remote flats). • Travel distances are less than 7.5m on the second-floor level (approximately 3.3m from the most remote flats) and as such comply with the prescriptive guidance recommendations.

	<p>This is however not considered a significant risk as both the ground and first floor level are below 4.5m from fire access level and as such ADB-Volume 1 and LACORS Fire Safety guide allow for escape windows to be used as an alternative means of escape and as such, escape windows should be provided to all bedsit units on the ground and first floor level. Escape windows should meet the following criteria in accordance with section 14 of the LACORS Fire Safety Guide recommendations which are:</p> <ul style="list-style-type: none"> • Escape windows should have an unobstructed open able area that is a minimum of 0.33m² having the minimum dimensions of 450 mm in height and 450 mm in width; • The ground beneath the window should be clear of any obstructions (such as iron railings or horizontally hung windows) and should be of a size and material that is suitable and safe for supporting a ladder; • For security purposes many windows are kept locked with a key. Occupants should be advised to keep the key close to the escape window where it can be easily located; • A door or window should not face onto an internal shaft or enclosure unless escape to a place of ultimate safety is possible without re-entering the building. <p>Escape from 49a Mortlake Road, is directly to outside and the studio room is one storey only. Means of escape is compliant and no further fire safety measures are required.</p>
Fire Compartmentation	As per Figure D8 of the LACORS Fire Safety Guide, a 30-minute fire protected escape route should be provided from the bedsits to the protected escape stair. There is no requirement to provide additional fire separation between bedsit units.
Structural Fire Protection	The height of the buildings are approximately 6.3m, so the loadbearing elements of structure will be required to achieve 60 minutes fire resistance in accordance with Approved Document B Volume 1 and the LACORS Fire Safety Guide.

The following two minor variances which have been addressed via alternative technical solutions:

The client has followed the recommendations to include fire-resisting lobbies, but an alternative solution to justify the layout without a lobby would be to do the following:

- Have enhanced detection (A Grade D Category LD1 fire and alarm system is recommended)
- Have an alternative means of escape from the lower ground level (from buildings 47a and 47&49, occupants can access the accommodation stair in the garden)
- FD30S doors to all the inner rooms and FD60S doors to all the plant rooms should be provided.

On the lower ground level for 47 & 49 Mortlake Road, the access rooms are the shared community kitchen. The LACORS fire safety guide does not normally permit access rooms to be places of fire risk. Per Clause 12.4 of the LACORS fire safety guide where it is impracticable to not have an outer room which is not a place of fire risk, the layout can be justified on the basis that:

- There will be enhanced automatic fire detection in the building.
- There are alternative means of escape. (For 47a and 47 Mortlake Road there is an alternative means of escape into the accommodation stair which is located in the garden).
- FD30S doors to all the inner rooms and FD60S doors to all the plant rooms should be provided.
- Escape windows to all habitable rooms on ground floor level should be provided (this should comply with Clause 14 of the LACORS Fire Safety guide)

Due to the revised layout at ground floor level, 47 and 49 Mortlake Road now connect to each other and share the same final exits with no independent final exits from each other. As such the buildings cannot be considered independent of each other and will be treated as one building. This does not make the condition any worse than the previous proposed design as:

- All doors to residential units will be FD30S doors (30-minute fire doors with self-closers).
- All doors to storerooms and office rooms at ground floor level will be FD30S doors (30-minute fire doors with self-closers).
- The stairs will be designed as protected stairs with the doors to the escape stairs being FD30S doors (30-minute fire doors with self-closers).

These variances are expected to be agreed as part of the Building Control supervision and sign off process.

3. LONDON PLAN POLICY D12 - FIRE SAFETY

The Proposed Development meets the requirements of London Plan Policy D12 – Fire Safety as detailed in Table 2.

Table 2 London Plan Policy D12

POLICY D12 REQUIREMENT	PROPOSED DESIGN	COMPLIANT WITH POLICY D12
D12.A.1.a – In the interests of fire safety and to ensure the safety of all building users, all development proposals must achieve the highest standards of fire safety and ensure that they identify suitably positioned unobstructed outside space for fire appliance to be positioned on.”	The site is served by public road. The proposed vehicle access complies with the requirements set out in guidance to meet the functional requirements of the Building Regulations B5 (Access and Facilities for Fire Service).	Yes
D12.A.1.b – In the interests of fire safety and to ensure the safety of all building users, all development proposals must achieve the highest standards of fire safety and ensure that they identify suitably positioned unobstructed outside space appropriate for use as an evacuation assembly point.”	The locations of the assembly point will be outlined in the fire risk assessment. Management policies and procedures to be developed by the building operator in accordance with their duties in terms of the Regulatory Reform (Fire Safety) Order 2005.	Yes
D12.A.2 – In the interests of fire safety and to ensure the safety of all building users, all development proposals must achieve the highest standards of fire safety and ensure that they are designed to incorporate appropriate features which reduce the risk to life and the risk of serious injury in the event of a fire; including appropriate fire alarm systems and passive and active fire safety features.	Appropriate fire alarm systems, passive and active fire safety features will be provided to meet the functional requirements of the Building Regulations B1 (Means of Warning and Escape), B2 (Internal Fire Spread – Linings) and B3 (Internal Fire Spread - Structure).	Yes
D12.A.3 – In the interests of fire safety and to ensure the safety of all building users, all development proposals must achieve the highest standards of fire safety and ensure that they are constructed in an appropriate way to minimise the risk of fire spread.	External fire spread analysis meets BR 187 recommendations and there will not be any external fire spread issues to neighbouring buildings. Where the external wall within 1 m distance of a relevant boundary on the east elevation, there are no openings (only solid wall construction). Therefore, the external wall surface will meet Building Regulations as set out in the functional requirements of the Building Regulations B4 (External Fire Spread)	Yes
D12.A.4 – In the interests of fire safety and to ensure the safety of all building users, all development proposals must achieve the highest standards of fire safety and ensure that they provide suitable and convenient means of escape, and associated evacuation strategy for all building users.	The evacuation strategy for each residential unit is based on simultaneous evacuation where in the event of a fire the occupants of the bedsit/residential unit will be warned to evacuate.	Yes
D12.A.5 – In the interests of fire safety and to ensure the safety of all building users, all development proposals must achieve the	Regulation 38 of the Building Regulations require that fire safety information such as the fire strategy	Yes

POLICY D12 REQUIREMENT	PROPOSED DESIGN	COMPLIANT WITH POLICY D12
<p>highest standards of fire safety and ensure that they develop a robust strategy for evacuation which can be periodically updated and published, and which all building users can have confidence in.</p>	<p>report be brought to the attention of building management and incorporated into the fire risk assessment. This will enable building owner/operator to develop relevant evacuation procedures and related documentation in accordance with their duties in terms of the Regulatory Reform (Fire Safety) Order 2005.</p>	
<p>D12.A.6 – In the interests of fire safety and to ensure the safety of all building users, all development proposals must achieve the highest standards of fire safety and ensure that they provide suitable access and equipment for firefighting which is appropriate for the size and use of the development.</p>	<p>Facilities for fire service will comply with the requirements set out in guidance to meet the functional requirements of the Building Regulations B5 (Access and Facilities for Fire Service).</p>	Yes
<p>D12.B.1 – All major development proposals should be submitted with a Fire Statement, which is an independent fire strategy, produced by a third party, suitably qualified assessor. The statement should detail how the development proposal will function in terms of the building's construction: methods, products and materials used, including manufacturers' details.</p>	<p>It is expected that the construction of materials used in the building will be:</p> <p>Wall construction: Brick 102.5mm Air gap 35mm 'Rockwool' Non-combustible 'duo slab' 150mm (Metal wall ties) Blockwork 100mm Airtight membrane 15mm Plasterboard on metal rails. Seemed Zinc Metal sheet Metal deck, galvanised. Stainless Steel sub structure 'Rockwool' Non-combustible 'duo slab' 150mm Blockwork 130mm Airtight membrane 15mm Plasterboard on metal rails. Windows/ Curtain walling: Double glazed Powder Coated Aluminium frames.</p> <p>Flat Roof construction: Balast/ green roof build up Single Ply membrane 'Foamglass' Insulation 250mm Concrete slab 2no. 15mm Plasterboard on MF suspended ceiling</p>	Yes
<p>D11.B.2 – All major development proposals should be submitted with a Fire Statement, which is an independent fire strategy, produced by a third party, suitably qualified assessor. The statement should detail how the development proposal will function in terms of</p>	<p>Means of escape for able and mobility impaired persons will meet the functional requirements of the Building Regulations B1 (Means of warning and escape). The horizontal and vertical</p>	Yes

POLICY D12 REQUIREMENT	PROPOSED DESIGN	COMPLIANT WITH POLICY D12
means of escape for all building users; suitably designed stair cores, escape for building users who are disabled or require level access, and associated evacuation strategy approach.	means of escape have been designed for stay put evacuation strategy in accordance with the LACORS Fire Safety guide.	
D12.B.3 – All major development proposals should be submitted with a Fire Statement, which is an independent fire strategy, produced by a third party, suitably qualified assessor. The statement should detail how the development proposal will function in terms of features which reduce the risk to life: fire alarm systems, passive and active fire safety measures and associated management and maintenance plans.	Appropriate active and passive fire safety measures to be put in place in accordance with guidance to meet the functional requirements of the Building Regulations B1, B2, B3 and Regulation 38.	Yes
D12.B.4 – All major development proposals should be submitted with a Fire Statement, which is an independent fire strategy, produced by a third party, suitably qualified assessor. The statement should detail how the development proposal will function in terms of access for fire service personnel and equipment: how this will be achieved in an evacuation situation, water supplies, provision and positioning of equipment, firefighting lifts, stairs and lobbies, any fire suppression and smoke ventilation systems proposed, and the ongoing maintenance and monitoring of these	<p>As per Figure D8 of the LACORS Fire Safety Guide, the following fire-fighting equipment is to be provided to 47a and 47&49 Mortlake Road :</p> <ul style="list-style-type: none"> • Fire blanket to be provided in each bedsit with cooking facilities. • Simple multi-purpose extinguisher on each floor in the common parts is recommended • Conventional lighting is required in the common areas and emergency lighting may be required if the escape route from the common areas is dark. <p>No fire-fighting equipment or safety systems is required in 49a Mortlake Road.</p>	Yes
D12.B.5 – All major development proposals should be submitted with a Fire Statement, which is an independent fire strategy, produced by a third party, suitably qualified assessor. The statement should detail how the development proposal will function in terms of how provision will be made within the curtilage of the site to enable fire appliances to gain access to the building.	<p>The site is served by public road. The proposed vehicle access complies with the requirements set out in guidance to meet the functional requirements of the Building Regulations B5 (Access and Facilities for Fire Service).</p> <p>Per ADB Clause 13.1, access for a pumping appliance should be provided to within 45m of all points inside the building.</p> <p>Every elevation to which vehicle access is provided should have a suitable door(s), not less than 750mm wide, giving access to the interior of the building.</p> <p>The proposed layout complies with the following and as such the building meets</p>	Yes

POLICY D12 REQUIREMENT	PROPOSED DESIGN	COMPLIANT WITH POLICY D12
	the functional requirements of B5 (Access and Facilities for Fire Service).	
D12.B.6 – All major development proposals should be submitted with a Fire Statement, which is an independent fire strategy, produced by a third party, suitably qualified assessor. The statement should detail how the development proposal will function in terms of ensuring that any potential future modifications to the building will take into account and not compromise the base build fire safety/protection measures.	Any potential future modifications will need to meet the Building Regulations applicable at that time. A risk register has been produced to outline potential Building Regulation changes.	Yes

4. LONDON PLAN POLICY D5 - INCLUSIVE DESIGN

It should be noted that the policy requirement D5 (Inclusive Design) requires as a minimum at least one lift per core (or more subject to capacity assessments) to be a suitably sized fire evacuation lift. The fire evacuation lift needs to be suitable for people evacuation and allow people who require level access from the building. The fire evacuation lifts should be constructed and designed to include suitable and necessary controls.

5. CONCLUSION

CHPK Fire Engineering (CHPKFE) has been appointed by Westlake Property Limited to produce a fire statement to the Proposed Development at 47a, 47 & 49 Lower Mortlake Road, Richmond, TW9 2LW (The Site) in London in terms of the London Plan Policy D12 – Fire Safety and D5 Inclusive Design.

It should be noted that the policy requirement D5 (Inclusive Design) requires as a minimum at least one lift per core (or more subject to capacity assessments) to be a suitably sized fire evacuation lift suitable to be used to evacuate people who require level access from the building. The fire evacuation lifts should be constructed and designed to include suitable and necessary controls. There is no requirement in current Building Regulations to install firefighting/evacuation lifts due to the building being less than 18m in height.

6. REFERENCES

1. The Local Authorities Coordinators of Regulatory Services (LACORS) guidance on fire safety provisions for certain types of existing housing (2008)
2. Building Regulations, Approved Document B – Volume 1, 2019, Fire Safety: Dwellings
3. BS 5839 Part 6: 2019, Fire detection and fire alarm systems for buildings. Code of practice for system design, installation, commissioning and maintenance, BSI
4. BR 187, External fire spread: building separation and boundary distances, 2014, BRE
5. BS 8519, Selection and installation of fire-resistant power and control cable systems for life safety, fire-fighting and other critical applications. Code of practice, 2020, BSi
6. The London Plan, The Spatial Development Strategy for Greater London, Mayor of London, March 2021

7. LIMITATIONS

Our advice is strictly limited to the scope of our current brief, i.e. technical note. Complying with the recommendations of this document will not guarantee that a fire will not occur. This document is based on the drawings and supporting information issued to CHPK Fire Engineering by Westlake Property Limited.

CHPK Fire Engineering Ltd have not reviewed any other issues within the project other than those identified in our report. We offer no comment on the adequacy or otherwise of any other aspects of the development (whether related to fire safety or any other issue) and any absence of comment on such issues should not be regarded as any form of approval. The advice should not be used for buildings other than that named in the title.