

London Plan Fire Statement

St Clare Business Park

IFC Report FS/23193/01A

Notting Hill Home Ownership Ltd



Partner
for
Progress

International Fire Consultants Ltd

International Fire Consultants is part of the **Kiwa UK Group**. The company is a specialist engineering consultancy delivering independent, honest and practical fire safety solutions to professionals across the built environment. The sought after fire safety advice protects life, preserves property and safeguards business continuity.

International Fire Consultants was established in 1985 to provide high quality and impartial technical expertise concerning fire safety. Since then the team of highly qualified Fire Engineers and Fire Safety Professionals have continued to deliver robust, innovative and cost-effective fire safety solutions, including Assessments, Designs and Inspections.

International Fire Consultants are able to lend their insight and practical expertise for: Fire Safety Engineering, Fire Risk Management, Product Evaluation, Fire Life Safety Systems, Expert Witness Testimony and Fire Protection Training, to developments of all sizes and complexities; from residential, education and healthcare structures to sporting venues, airports and iconic heritage buildings, such as historical royal palaces and stately homes.

Recognised internationally as the go-to professionals in all aspects of fire safety, International Fire Consultants is one of the world's leading fire engineering and solution providers, trusted by many of the most prestigious construction firms, architects and estate owners.

HEAD OFFICE/CORRESPONDENCE ADDRESS:

International Fire Consultants Limited
Park Street Business Centre
Park Street
Princes Risborough
Buckinghamshire
HP27 9AH

REGISTERED ADDRESS:

International Fire Consultants Limited
Kiwa House
Malvern View Business Park
Stella Way, Bishops Cleeve
Cheltenham
GL52 7DQ

+44 (0)1844 275500

uk.firesafety@kiwa.com

Registered No: 2194010

Private and Confidential

This report should not be manipulated, abridged or otherwise presented without the written consent of International Fire Consultants.

Report:	London Plan Fire Statement
Report Reference Number:	IFC Report FSS/23193/01A
Prepared on behalf of:	Notting Hill Home Ownership Ltd
Project:	St Clare Business Park

Issue Record

REV	DATE	AUTHOR	REVIEW	SECTION	AMENDMENTS
-	17/06/2022	AA	SW	-	First issue
A	22/06/2022	AA	SK	0	Text updated following comments by the design team
				3.2	
				3.1	Site address updated
				4.1.5	Text updated to provide clarity on external wall's requirements
				4.2.3	Text updated to provide more information about evacuation lift capacity for Block B1 and B2

Contents

1. Introduction	5
2. London Plan	6
2.1 Planning Policy and Design Guidance	6
2.2 Declaration of Compliance	7
2.3 Building Regulations	7
3. General information	8
3.1 Site Address	8
3.2 Description of development	8
3.3 Name, qualifications and professional membership and experience of the author	8
4. Fire statement – Policy considerations (D12B)	10
4.1 Construction Methods, Products and Materials	10
4.2 Means of Escape for all building users and the evacuation strategy	12
4.3 Passive and active fire safety measures	13
4.4 Routine Inspection and Maintenance of Fire Safety System	15
4.5 Access and Facilities for the Fire Service	15
4.6 Future proofing, Golden thread of information	15
5. Limitations	17

1. Introduction

International Fire Consultants Ltd (IFC) has been commissioned by Notting Hill Home Ownership Ltd to provide a Fire Statement for the proposed redevelopment of St Clare Business Park and 7 – 11 Windmill Road, Hampton Hill, Hampton TW12 1QF.

The proposed redevelopment consists of a part three, part four, and part five-storey building plus basement (Block B1), a three-storey commercial building (Block B2), and three blocks of three-storey houses as depicted in Figure 1.

Developments where 10 or more dwellings are to be provided, or the site area is 0.5 hectares or more need to comply with the London Plan. This fire statement is in accordance with the March 2021 version of the London Plan, having particular emphasis on Policy D12 (Fire Safety).

The report has been based on the drawings produced by AHR as listed in Table 1.

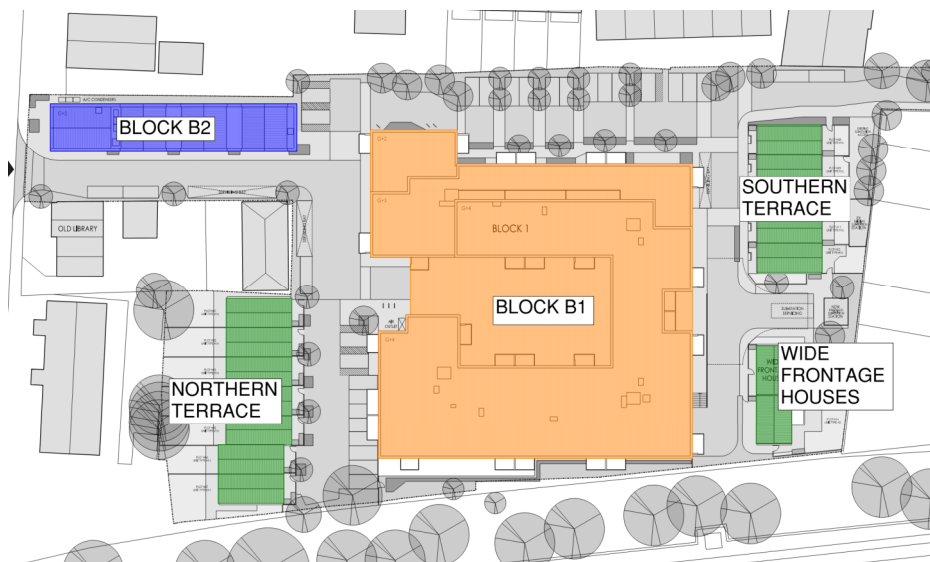


Figure 1 – Site plan

Table 1 - Drawings reviewed

DRAWING NUMBER	REVISION	DRAWING DESCRIPTION
S0-XX-DR-A-20-001-P1	P01	Proposed site layout
B1-B1-DR-A-20-010-P1	P03	Block B1 Basement Plan
B1-00-DR-A-20-011-P1	P02	Block B1 Ground Floor Plan
B1-01-DR-A-20-012-P1	P02	Block B1 First Floor Plan
B1-02-DR-A-20-013-P1	P02	Block B1 Second Floor Plan
B1-03-DR-A-20-014-P1	P02	Block B1 Third Floor Plan
B1-04-DR-A-20-015-P1	P02	Block B1 Fourth Floor Plan
B1-R1-DR-A-20-016-P1	P03	Block B1 Roof Plan
B2-XX-DR-A-20-020-P1	P01	Block B2 Floor Plans
B3-00-DR-A-20-030-P1	P01	Houses Ground Floor Plans

2. London Plan

2.1 Planning Policy and Design Guidance

2.1.1 The London Plan

The Greater London Authority published “The London Plan” in March 2021. The document provides a series of policies to ensure “Good Growth” for London. As part of the Plan, all *major development* proposals should be submitted with a Fire Statement in line with the requirements of Policy D12 B, which is described in the next section.

In addition, for *major development* proposals, the Fire Statement should include the provision of an evacuation lift as per Policy D5(B5), which is briefly described in Section 2.1.3.

2.1.2 Policy D12 Fire Safety

Policy D12 of the London Plan 2021 requires that all development proposals must achieve the highest standards of fire safety and all *major developments* must be supported by a Fire Statement as per the excerpt below.

B 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:

- i) the building’s construction – methods, products and materials used, including manufacturers’ details (see Section 4);*
- ii) the 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 (see Section 4.2);*
- iii) features which reduce the risk to life – fire alarm systems, passive and active fire safety measures and associated management and maintenance plans (see Section 4.3);*
- iv) 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 (see Section 4.5);*
- v) how provision will be made within the curtilage of the site to enable fire appliances to gain access to the building (see Section 4.5); and*
- vi) ensuring that any potential future modifications to the building will take into account and not compromise the base build fire safety/protection measures (see Section 4.6).*

2.1.3 Policy D5(B5)

Policy D5(B5) of the London Plan 2021 requires that all developments where lifts are installed, as a minimum at least one lift per core should be installed as per the excerpt below.

“Policy D5 Inclusive design requires development to incorporate safe and dignified emergency evacuation for all building users, by as independent means as possible. In all developments where lifts are installed, Policy 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. Fire evacuation lifts and associated provisions should be appropriately designed and constructed, and should include the necessary controls suitable for the purposes intended.”

2.2 Declaration of Compliance

This document describes how the proposed design will meet with the requirements detailed above achieving the highest standards of fire safety as more fully detailed in Policy D12 of the London Plan. In IFC’s view the design of the proposed development as described in this Fire Statement accords with London Plan Policies D12B and D5 (B5). The Fire Statement is based on the design being submitted for Planning Approval as shown on the drawings listed in Table 1. In accordance with the London Plan, the statement has been prepared by suitably qualified and competent professionals with the demonstrable experience to address the complexity of the design being proposed.

The more detailed development of the design during later design stages should take into account the contents of this Fire Statement.

2.3 Building Regulations

With regards to fire safety and in addition to Policy D12, the development will be subject to approval under the Building Regulations 2010 as modified by the Building (Amendment) Regulations 2018, meaning that the design and construction must comply with the Functional Requirements B1 to B5 of Schedule 1 Regulation 7(2). Regulation 7(2) applies only to “relevant buildings”. St Clare Business Park development does not fall under the definition of “relevant buildings”; however, relevant requirements will be achieved to satisfy employer’s requirement.

Approved Document B 2019 edition (ADB)¹ incorporating 2020 amendments has been adopted as a performance benchmark for the residential areas. BS 9999:2017² has been adopted for non-residential areas.

¹ *Approved Document B, Volume 1 – Dwellings – 2019 edition incorporating 2020 amendments*, HM Government, 2020

² BS 9999:2017. *Fire safety in the design, management and use of buildings. Code of practice*

3. General information

3.1 Site Address

The site is located at St Clare Business Park and 7 – 11 Windmill Road, Hampton Hill, Hampton TW12 1QF.

3.2 Description of development

The proposed redevelopment consists of part three, part four, and part five-storey building plus basement (Block B1), a three-storey commercial building (Block B2), and three blocks of three-storey dwellinghouses.

The planning permission is sought for the demolition of existing buildings and erection of:

- 1no. mixed use building between three and five storeys plus basement in height, comprising 98no. residential flats (Class C3) and 1,172 m² of commercial floorspace (Class E);
- 1no. three storey building comprising 893 m² of commercial floorspace (Class E); 14no. residential houses (Class C3); and
- associated access, external landscaping, and car parking.

The residential Block B1 has 4 cores and a top storey height of 13.3 m. The commercial building Block B2 has a top storey height of 6.9 m. Dwellinghouses have a top-storey height of 5 m.

Block B1 has a car park in the basement and ground floor. On the ground floor there are also several commercial areas. The residential areas are fire separated from the commercial areas using fire resisting construction.

A breakdown of the building heights is provided in Table 2.

Table 2 – Building Overview

Block	No. of Storeys	Top Storey Height
B1	5 and one basement level	13.3 m
B2	3	6.9 m
Houses	3	5 m

3.3 Name, qualifications and professional membership and experience of the author

Alessandra Aguinagalde (the author) is a Fire Safety Engineer, having joined International Fire Consultants after her three years of research fellowship at Sapienza University of Rome. She has a master's degree in Structural Engineering hold in 2018 with a final dissertation on nonlinear finite element analysis of thermoplastic large displacements behaviour of steel structures under fire with reference to Cardington large-scale fire tests. Alessandra is a Chartered Engineer with the Engineering Council of Italy.

Stewart Wong (the reviewer) gained his Bachelor's degree in Building Services Engineer in 2005 from The University of Hong Kong and later his Master's degree in Fire Safety Engineering in 2010 from The Polytechnic University of Hong Kong. He has been practicing fire engineering for 17 years internationally. Originally based in Hong Kong and he is now based in UK for last 3 years.

He holds the Chartered Engineer (CEng) status in the UK and full Member of IFE (MIFireE). He is also a member of Hong Kong Institution of Engineers (MHKIE) with profession in fire safety. Stewart has been working on various constructions including infrastructures, commercial and residential buildings ranging from low-rise to high-rise buildings across different countries as the designing engineer. Recently he worked on the 100 Bishopsgate and Leadenhall Building (London) during the construction stage in providing technical support and updates on the fire strategy reports. Both projects are high-rise commercial developments located at central London.

4. Fire statement – Policy considerations (D12B)

4.1 Construction Methods, Products and Materials

4.1.1 Construction and Structural Fire Resistance

The main construction method for Block B1 and B2 is reinforced concrete (RC) frame structure with external brick leaf.

All houses on the proposed development will be constructed using blockwork on the internal leaf with brick work on the external leaf.

The loadbearing elements of the structure will achieve the required fire resistance in terms of loadbearing capacity as set out in Table 3.

Table 3 – Structural fire resistance

TOP-STOREY HEIGHT	MINIMUM FIRE RESISTANCE
Up to 5 m	30-minute standard
Over 5 m and up to 18 m	60-minute standard

4.1.2 Compartmentation

The main elements of compartmentation and the relevant fire performance of separating elements will be in accordance with ADB and/or BS 9999 as appropriate.

The residential part of Block B1 will be separated from the non-residential areas by at least 60-minute fire compartmented walls.

Each flat in Block B1 will be separated from the rest of the building by structures having 60-minute standard of fire resistance (integrity and insulation).

Each house will form its own compartment achieving at least 60-minute standard of fire resistance (integrity and insulation).

4.1.3 Internal Fire Spread

Wall and ceiling linings will achieve the following surface spread of flame classifications according to BS EN 13501-1³ in line with Table 4.

Table 4 – Classification of Linings

Location	European Class*
Small rooms of area not more than 4 m ² in residential accommodation or 30 m ² in non-residential accommodation	D-s3,d2
Rooms, general	C-s3,d2
Circulations spaces within dwellings	C-s3,d2
Other circulation spaces including the common areas of blocks of flats	B-s3,d2

³ BS EN 13501-1:2018. *Fire classification of construction products and building elements. Classification using data from reaction to fire tests.*

NOTE

** When a classification includes “s3,d2”, this means that there is no limit set for smoke production and/or flaming droplets/particles.*

4.1.4 External Fire Spread between buildings (separating distance)

External fire spread calculations have been carried out based on the current design information.

External walls that are less than 1 m from the boundary such as the east elevation of the northern block of houses will be provided with building structure achieving a fire resistance of at least 30 minutes (REI30) from both sides separately, which will require the only unprotected openings permitted on this elevation to be a maximum of 1 m².

Other elevations will be designed in accordance with BRE report BR 187 as recommended by Approved Document Part B and BS 9999.

4.1.5 External Wall Construction and Cladding Materials

Regulation 7(2) of the Building Regulations, as introduced by the Building (Amendment) Regulations 2018, introduces strict restrictions on the combustibility of materials that are contained within or attached to external walls of “relevant buildings”. No buildings in this development are classified as “relevant buildings”; however, the restrictions will be met to satisfy the employer’s requirement to all parts of Block B1 and houses.

The implications are summarised below.

All materials other than a specific list of exceptions that become part of an external wall or specified attachment of a relevant building must be of European Class A2-s1, d0 or Class A1. The definition of “external wall” includes anything contained within the wall, so it includes any materials used in the construction of the wall as well as anything passing through external walls, such as ductwork or pipes.

A “specified attachment” is defined as:

1. a balcony attached to an external wall;
2. a device for reducing heat gain within a building by deflecting sunlight which is attached to an external wall; or
3. a solar panel attached to an external wall.

It should be noted that whilst item 2 above was in the original regulations, it has essentially been removed subsequently.

The following materials are exempt from the requirements shown above. This is a specific list of exceptions and if a particular material is not included in the list below, it would need to comply with the combustibility restrictions shown above.

- Cavity trays when used between two leaves of masonry;
- Any part of a roof other than any part of a roof that falls within paragraph (iv) of regulation 2(6) if that part of the roof is connected to an external wall;
- Door frames and doors;
- Electrical installations;
- Insulation and waterproofing materials used below ground level;

- Intumescent and fire stopping materials where the inclusion of the materials is needed to meet the requirements of ADB;
- Membranes (see note below);
- Seals, gaskets, fixings, sealants and backer rods;
- Thermal break materials where the inclusion of the materials is needed to meet the thermal bridging requirements of Part L of Schedule 1 of the Building Regulations; and
- Window frames and glass.

NOTE: Whilst membranes are in the list of excluded items, there would still be a requirement in ADB for membranes within external walls to achieve at least a Euro Class B-s3,d0 performance.

4.2 Means of Escape for all building users and the evacuation strategy

4.2.1 Escape strategy

In purpose-built blocks of flats, special provisions are made to ensure that a fire is contained within the flat of origin and that common escape routes and stairways remain relatively free from smoke and heat in the event of a fire within a dwelling. For this reason, the general fire strategy for the residential apartments is a stay put strategy and simultaneous evacuation of the entire building will not be necessary unless directed otherwise by attending fire and rescue service.

Escaping occupants will make their route to the stair via a corridor provided with smoke control systems. On the ground floor, they can leave the stair to outside directly or via a protected corridor.

Each core of Block B1 is served by a single stair and a single evacuation lift.

Non-residential sections of the Block B1 will adopt a simultaneous evacuation strategy, whereby all occupants in the non-residential areas will escape. Block B2 will also adopt a simultaneous evacuation strategy, whereby all occupants will escape at the same time.

The evacuation strategy shall be included in the fire safety manual and distributed between the building users by the building owner or operator. In the case of any temporary or permanent change of the escape routes, the evacuation strategy shall be updated and re-distributed.

4.2.2 Disabled Occupants

RESIDENTIAL SECTIONS

The apartment storeys do not need specific disabled egress measures given the “defend in place” philosophy. Disabled occupants not affected by the fire would stay in their flats and those affected will escape to the stair or via the evacuation lift (discussed in the next section).

NON-RESIDENTIAL SECTIONS

All occupants including disabled occupants in the fire-affected alarm zone will escape.

Refuge point for non-residential section of Block B1 is not required as the commercial units are at ground level and open directly to outside. Levelled evacuation routes are thus available for evacuation.

Refuge points will be provided in Block B2. They will be provided within the protected stair or lobby areas on each floor except the ground floor.

Disabled occupants will escape via the evacuation lift or the stair.

4.2.3 Evacuation Lifts and associated evacuation strategy

Provision will be made for the means of escape of disabled occupants by the inclusion of a lift suitable for evacuation within each core in accordance with London Plan Policy D5(B5). The lifts will serve all the floors that are served by the stairs. The evacuation lifts may be combined with the passenger lifts subject to them providing the same functionality as an evacuation lift.

The evacuation lifts discharge at ground floor level into a protected lobby, from which occupants can escape to outside.

There are currently no published standards for evacuation lifts. Therefore, a holistic approach has been taken in accordance with available guidance such as BS 9991 and BS 9999. It is the client's intention that more detailed design of evacuation lifts and the operation will be carried out at later stages once standards such as BS 81-76, new BS 9991 (which includes guidance on providing evacuation lifts) are published.

The evacuation lift currently provided in each core of Block B1 can accommodate up to 8 persons, whilst the evacuation lift provided on Block B2 can accommodate up to 13 persons.

The operation of the evacuation lifts will need to be developed with the building management as the design progresses. It is common for lifts used during an emergency evacuation to be manually operated by a trained member of staff; however, this relies on being staff in the building at all times. There is potential for residents to self-evacuate via lifts but their safety to do so will need careful consideration, design and programming of the lift. This will need to be included in the fire strategy and fire safety management plan.

4.2.4 Assembly points

Assembly points will be provided for the staff member of the non-residential areas in close proximity to the buildings, i.e. Block B1 and B2. The customers of the commercial areas will not be trained to evacuate to the assembly point. Hence, they are not expected to follow the same procedure as the staff members.

Assembly points for residents will not be provided as defend in place strategy is applied for the residential areas.

4.3 Passive and active fire safety measures

4.3.1 Automatic Fire Detection and Alarm System

Each flat and house will be provided with a Grade D1 Category LD1 smoke detection and alarm system in accordance with BS 5839-6:2019⁴. Where smoke control system is provided in residential communal areas such as corridors and stairs, automatic fire detection system will be provided to activate such system. In general, automatic fire detection system provided in communal areas do not have sounders or manual activation device.

The non-residential sections of the building will be protected throughout with automatic fire detection and alarm systems in accordance with BS 5839-1:2017⁵.

⁴ BS 5839-6:2019+A1:2020. *Fire detection and fire alarm systems for buildings. Code of practice for the design, installation, commissioning and maintenance of fire detection and fire alarm systems in domestic premises.*

⁵ BS 5839-1:2017. *Fire detection and fire alarm systems for buildings. Code of practice for design, installation, commissioning and maintenance of systems in non-domestic premises.*

4.3.2 Automatic Water Fire Suppression System

Residential areas and ancillary accommodations in Block B1 will be protected throughout with domestic sprinkler system in accordance with BS 9251:2021⁶.

Non-residential areas of Block B1 will have sprinkler protection throughout in accordance with BS EN 12845⁷:2015. The category of the system, which affects sprinkler water tank size and associated duty and standby pumps, will be designed for the worst-case fire hazard within the building.

For Block B2, sprinkler protection is not provided as the building has a top-storey height less than 30 m in accordance with BS 9999:2017.

Houses are not provided with sprinkler system as they will have an internal protected stair and a top-storey height less than 11 m in accordance with ADB.

4.3.3 Smoke Ventilation and Control System

Residential communal corridors in Block B1 will be protected with either mechanical smoke ventilation systems or natural smoke extract systems.

Common stairs in each core of Block B1 will have smoke ventilation system. Generally, this is provided in the form of an automatically opening vents with a free area not less than 1.0 m².

The basement will be ventilated via either natural smoke ventilation system or a mechanical extract system capable of:

- providing 10 air changes per hour;
- handling gas temperatures of 300°C for a continuous period of not less than 60 minutes; and
- operating automatically on activation of the sprinkler system or fire alarm system.

4.3.4 Secondary Power Supplies

Each life safety system provided within the development will have an independent secondary power supply that will operate in the event of a failure of the main supply, including the following systems:

- automatic fire detection and alarm systems;
- emergency lighting;
- all fans, actuators, and controls associated with mechanical smoke ventilation systems;
- sprinkler system; and
- evacuation lifts.

Secondary power supplies can be provided from another substation or an alternate power source, i.e. a battery backup or a generator.

⁶ BS 9251:2021. *Fire sprinkler systems for domestic and residential occupancies. Code of practice.*

⁷ BS EN 12845:2015+A1:2019. *Fixed firefighting systems. Automatic sprinkler systems. Design, installation and maintenance.*

4.4 Routine Inspection and Maintenance of Fire Safety System

Fire safety systems shall be maintained in accordance with the relevant British or European standards. An inspection, maintenance, and repair manual shall be part of the fire safety manual and incorporated in the building management plan.

Further guidance will be provided to assist those responsible with such matters which includes Section 9 of BS 9991, and Appendix I and W of BS 9999.

4.5 Access and Facilities for the Fire Service

4.5.1 Site access and curtilage of the site

Access for fire and rescue service will be provided via Windmill Road and Holly Road. The access via these two public roadways is in accordance with the requirement specified in the relevant guidance, i.e. fire appliance access point in close proximity (18 m) to the entrance of each core in Block B1. Perimeter access will be provided to the commercial units on the ground floor of Block B1 and to the Block B2.

Fire appliance access will be provided to within 45m from all points inside the dwellinghouse.

Windmill Road and Holly Road are existing roads and suitable for a fire service pump appliance. The additional access routes provided as part of the project will be designed to meet the recommendations in ADB and BS 9999. The roadways will, as a minimum, provide a 3.7 m clear width, 3.7 m vertical clearance height, and a minimum load-bearing capacity of 14 tonnes.

Fire service access within the curtilage of the site will be kept clear of any obstructions in order to provide appropriate positioning for the fire appliances in proximity to the entrance of the building.

4.5.2 Facilities for the Fire Service

A dry rising main will be installed in the residential part of Block B1 with outlets at each level accessed from the stair core lobby and designed in accordance with BS 9990:2015.

Outlets are to be provided on each floor level, such that all points within the residential areas will be reachable within the maximum 60 m hose-laying distance for sprinkler-protected buildings.

The inlet should be visible and located within 18 m of a suitable location where a fire appliance can park, i.e. on the external façade situated near the entrance to the buildings.

Public fire hydrants will be provided such that they are located in positions near the building entry points and fire appliance parking locations so that the distance from the supply to the appliance, which is covered by the laying of a hose, can be kept to a minimum and in any case not more than 90 m.

4.6 Future proofing, Golden thread of information

The details of the information retention systems will be determined by the client.

However, IFC recommend that all the fire safety design information shall be recorded during the design and construction including but not limited to escape, fire compartmentation, and fire safety systems information. The digital record of these documents shall be held by the operator of the building and transferred when building ownership changes. This is to ensure that the golden thread of information persists throughout the building life cycle in line with the recommendations of Independent Review of Building Regulations and Fire Safety published by the UK Government.

Modification of the following elements of the building may adversely affect the original fire safety strategy.

- Fire detection and alarm systems
- Fire suppression systems
- Smoke clearance and control systems
- Increasing population
- Changing the use of the areas
- Escape routes
- Number and dimension of escape stairs
- Refuge areas
- Wall and ceiling linings
- Fire protection of the building structures
- Changing fire and smoke doors
- Changing, penetrating fire compartments, cavity barriers
- Increasing fire load in certain areas
- Creating, changing openings on the external envelope
- Changes in the external envelope of the building
- Changes in the environment of the building related to the fire service access points and parking

5. Limitations

Our advice is strictly limited to the scope of our current brief, i.e. to prepare a Fire Statement in accordance with the March 2021 version of the London Plan for the proposed redevelopment of St Clare Business Park and 7 – 11 Windmill Road, Hampton Hill, Hampton TW12 1QF.

International Fire Consultants 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.

Prepared by:



Alessandra Aguinagalde

MEng BEng AIFireE
Fire Safety Engineer
International Fire Consultants Ltd.

Reviewed by:



Sunghan Koo

PhD MSc BEng AIFireE
Associate Director
International Fire Consultants Ltd.



Stewart Wong

BEng MSc CEng MIFireE MHKIE
Chartered Senior Fire Engineer
International Fire Consultants Ltd.