London Plan Fire Statement

OCTOBER 2024

JAMESTOWN ROAD

JENSEN HUGHES

Report

Project	Jamestown Road
Report Title	Fire Statement
Our Ref	HL9179/ R1 Issue 5

Report

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Approved	BT	BT	BT	BT	BT	

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1.0 INTRODUCTION

1.1 Building Description

Jamestown Road is a proposed development in London consisting of student accommodation and residential use. The site is located at 33-35 Jamestown Road London NW1 7DB and 211 Arlington Road London NW1 7HD.

The project is demolition of existing buildings and structures to facilitate redevelopment comprising a Purpose Built Student Accommodation (Sui Generis) block over the basement, ground, plus six storeys and seventh-floor plant room with flexible commercial (Class E) on the ground floor and a residential (Class C3) block over the ground plus five storeys, each block has two private courtyards with hard and soft landscaping, cycle parking, and associated works. The development will consist of two blocks. West Block is for student accommodation, ground floor will consist of flexible space and reception whereas the basement will consist of cycle store, flexible space and plant rooms. East Block is for residential, ground floor will consist of apartments and cycle store whereas the basement will consist of plant rooms. The blocks range in heigh as follows:

- West Block: The top floor height is approximately 20m above ground level and consists of ground plus 6 storeys.
- East Block: The top floor height is approximately 16.8m above ground level and consists of ground plus 5 storeys.

Figure 1: West Block Building Height

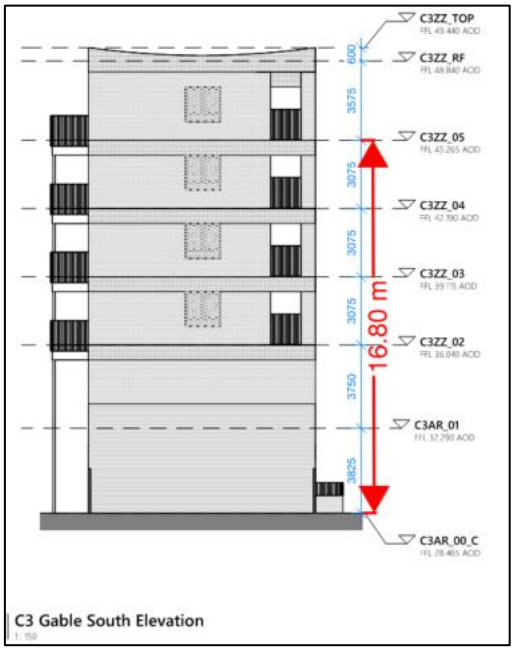

Figure 2: East Block Building Height

1.2 Aim of Report

The purpose of a Fire Statement is to demonstrate that fire safety has been considered at the earliest opportunity and that the requirements of Chapter 3, Policies D5 and D12 as detailed in the London Plan 2021 have been addressed.

1.3 Design Basis

The design has been primarily based on the guidance within:

- BS 9991:2015, *Fire safety in the design, management, and use of residential buildings – Code of practice* (for residential areas and ancillary accommodation).
- BS 9999:2017, Fire safety in the design, management, and use of buildings. Code of practice (for the non-residential areas).
- Approved Document B: Volume 1 2019 (incorporating 2020 and 2022 amendments) has been used where appropriate to supplement BS 9991 and incorporate revised guidance and changes in regulations.

2.0 LEGISLATION AND GUIDANCE NOTES

2.1 London Plan 2021

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

Policy D12 Fire safety

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:

1) identify suitably positioned unobstructed outside space:

   a) for fire appliances to be positioned on

   b) appropriate for use as an evacuation assembly point

2) 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 measures

3) are constructed in an appropriate way to minimise the risk of fire spread

4) provide suitable and convenient means of escape, and associated evacuation strategy for all building users

5) develop a robust strategy for evacuation which can be periodically updated and published, and which all building users can have confidence in

6) provide suitable access and equipment for firefighting which is appropriate for the size and use of the development.

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:

1) the building's construction: methods, products and materials used, including manufacturers' details

2) 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

3) features which reduce the risk to life: fire alarm systems, passive and active fire safety measures and associated management and maintenance plans

4) 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

5) how provision will be made within the curtilage of the site to enable fire appliances to gain access to the building

6) ensuring that any potential future modifications to the building will take into account and not compromise the base build fire safety/protection measures.

Figure 3: Extract from London Plan (March 2021) Excerpt Policy D12 Fire Safety

Policy D5 Inclusive design

A Boroughs, in preparing their Development Plans, should support the creation of inclusive neighbourhoods by embedding inclusive design, and collaborating with local communities in the development of planning policies that affect them.

B Development proposal should achieve the highest standards of accessible and inclusive design. They should:

1) be designed taking into account London's diverse population
2) provide high quality people focused spaces that are designed to facilitate social interaction and inclusion
3) be convenient and welcoming with no disabling barriers, providing independent access without additional undue effort, separation or special treatment
4) be able to be entered, used and exited safely, easily and with dignity for all
5) be designed to incorporate safe and dignified emergency evacuation for all building users. In all developments where lifts are installed, as a minimum at least one lift per core (or more subject to capacity assessments) should be a suitably sized fire evacuation lift suitable to be used to evacuate people who require level access from the building.

C Design and Access Statements, submitted as part of development proposals, should include an inclusive design statement.

Figure 4: Extract from London Plan (March 2021) Excerpt Policy D5 Inclusive design

2.2 Building Regulations

In order to comply with the requirements of Policy D5, D12 and the functional requirements of the Building Regulations 2010 (incorporating the building (Amendment) Regulations 2018), the design has primarily followed the guidance available within BS 9991: 2015, *Fire Safety in the Design, Management, and Use of Residential Buildings – Code of Practice.*

Top storey height of West block is over 18m therefore classified as a "relevant building" and the additional perspective requirements of Regulation 7(2) will apply. Therefore, the building design and this fire statement also considers the relevant guidance in Approved Document B Volume 1: 2019 (incorporating 2020 and 2022 amendments) to reflect recent changes to Building Regulations guidance in relation to external walls. Although the West block is not a "relevant building", requirements of Regulation 7(2) will also be followed.

2.3 Declaration

Provided that the design complies with the fire safety strategy and provisions mentioned in this statement, the fire safety of the proposed development and the fire safety information should satisfy the requirements of London Plan Policies D5(B5) and D12 and the functional requirements of the Building Regulations. The Fire Safety London Plan Guidance (Feb 2022) has also been considered when developing the fire strategy for these buildings.

In accordance with the London Plan, the statement has been prepared and reviewed by fire engineers who are suitably qualified and competent professionals with the demonstrable experience to address the complexity of the design being proposed.

Jensen Hughes are highly experienced team of specialist fire engineers that have been operating in the UK and Ireland for nearly 30 years (predominantly under the name JGA). The qualifications of the author of this report are given below:

Report By: Ayushi Subedi MSc

Checked and approved By: Boris Tang Meng, MEng, CEng, MIFireE, MIMechE

3.0 THE LONDON PLAN 2021

The purpose of a Fire Statement is to show how the requirements of the London Plan have been considered and addressed. In additional to the London Plan itself, development of the design and the Fire Statement has considered the guidance in the GLA document, London Plan Guidance, Fire Safety, February 2022. The table below illustrates where the requirements of the relevant London Plan policies are specifically addressed:

Policy Number	Description	Relevant Section in the Report
Policy D12, Subsection A1(a)	Identify suitably positioned and unobstructed outside space for positioning of fire appliances	10.2
Policy D12, Subsection A1(b)	Identify suitably positioned and unobstructed outside space appropriate for use as an assembly point	6.6
Policy D12, Subsection A2	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 measures	5.0 (Active Measures) and 8.0 (Passive Measures)
Policy D12, Subsection A3	The building must be constructed in an appropriate way to minimize the risk of fire spread	9.0
Policy D12, Subsection A4	Provide suitable and convenient means of escape, and an associated evacuation strategy for all building users	6.0 and 7.0
Policy D12, Subsection A5	Develop a robust strategy for evacuation which can be periodically updated and published, and which all building users can have confidence in.	6.0 and 7.0
Policy D12, Subsection A6	Provide suitable access and equipment for firefighting which is appropriate for the size and use of the development.	10.0
Policy Number	**Description**	**Relevant Section in the Report**
Policy D12, Subsection B1	Building's construction: methods, products and materials used, including manufacturers' details.	8.0
Policy D12, Subsection B2	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.	6.0 and 7.0
Policy D12, Subsection B3	Features which reduce the risk to life: fire alarm systems, passive /active fire safety measures and associated management and maintenance plans.	5.0 (Active Measures) and 8.0 (Passive Measures)
Policy D12, Subsection B4	Access for fire service personnel and equipment: how this will be achieved in an evacuation situation, water supplies, provision and position of equipment, firefighting lifts, stairs and lobbies, any fire suppression and smoke ventilation systems proposed, and the ongoing maintenance and monitoring of these.	10.0
Policy D12, Subsection B5	How provision will be made within the curtilage of the site to enable fire appliances to gain access to the building.	10.2
Policy D12, Subsection B6	Ensure that any potential future modifications to the building will take into account and not compromise the base build fire safety/ protection measures.	12.0

Policy Number	Description	Relevant section in the Report
Policy D5, Subsection B5	In all developments where lifts are installed, a minimum one lift per core (or more subject to capacity assessments) should be a suitably sized fire evacuation lift	6.5 and 7.5

Table 1: London Plan Policy Summary

4.0 BUILDING SAFETY ACT 2022

The Building Safety Act was granted Royal Assent on 28 May 2022. This sets out a new regulatory framework which will cover the planning, design, construction and occupation of buildings. Compliance will be monitored by the new Building Safety Regulator (BSR), who is the new Building Control Authority for higher risk residential buildings (HRBs). HRBs are buildings > 7 storeys or 18m high containing residential accommodation.

BSR became the new Building Control Authority on 1 October 2023. It is now necessary for relevant projects to submit for a building control approval application (Gateway 2). Approval will need to be granted before work can commence on site. There will, however, be a short transition period (anticipated 6 months to April 2024) for any applications made before that date.

The new building control approval framework will require a range of information to be submitted for approval. This includes:

- Plans, details, specifications
- Construction control plan
- Fire and emergency file
- Building regulations compliance document
- Planning statement
- Change control plan
- Competence declaration
- Description of mandatory occurrence reporting system

During construction the BSR will carry out inspections at key milestones. Change control applications will need to be submitted and approved before those changes can be implemented. Upon completion of construction works the BSR will assess the application including as built information, carry out any final inspections and review the documentation given to the building owner (golden thread). On approval the BSR will issue a completion certificate (Gateway 3).

Once the completion certificate is issued the building will need to be registered. It will not be possible to occupy a building until it is registered.

There are additional requirements for the Accountable Person once the building is occupied. The Accountable Person is responsible for the following:

- Assessing and managing safety risks
- Managing the building safety information (golden thread)
- Preparing the safety case report (and keeping it up to date)
- Engaging with residents
- Setting up a complaints procedure and a system of reporting of incidents.

5.0 ACTIVE FIRE SAFETY SYSTEMS

5.1 Fire Detection and Alarm System

The level of detection that will be provided to each part of the site is described in the following table.

Area	Category	Guidance to be in accordance in
Apartments	LD1	BS 5839-6
Common corridors	L5	BS 5839-1
Amenity areas	L3	BS 5839-1
Ancillary areas, e.g. refuse store, cycle stores, plant rooms etc.	L3	BS 5839-1

Table 2: Automatic Fire Detection Provisions

5.2 Sprinkler Systems

The top floor height of the building is more than 11m above ground. Therefore, an automatic fire sprinkler system will be provided within the building. All apartments will be provided with sprinklers in accordance with BS 9251: 2021.

All the non-residential accommodation and residential ancillary accommodation not within the scope of BS 9251: 2021 will be provided with a commercial sprinkler system conforming to BS EN 12845: 2015.

5.3 Emergency Lighting

Emergency lighting will be provided in accordance with BS 5266-1 to illuminate escape routes in the event of mains failure. The provision of emergency lighting will cover the following areas:

- Ancillary accommodation normally accessible to the occupants
- Any plant/service rooms
- Common escape routes
- Underground or windowless accommodation
- Location of fire safety equipment e.g. fire control and indicating panels.

5.4 Escape Signage

Signs in accordance with BS 5499-4 and BS ISO 3864-1 will be provided on common escape routes. Directional, action and identification signage will be provided throughout the building to:

- Illuminated exit signage to show the location of storey exits
- Outline the action to be taken in a fire alarm situation, or if a fire is discovered
- Show the location of fire safety measures e.g. dry riser inlet/ outlet points
- Fire doors will be marked “FIRE DOOR KEEP SHUT”/ “FIRE DOOR KEEP LOCKED”

Wayfinding signage for the fire service will be provided in accordance with Paragraphs 15.13 to 15.16 of the Approved Document B (Volume 1) to assist the fire service to identify each floor in a block of flats.

5.5 Emergency Power Supply

Emergency power supply will be provided to all life safety systems (sprinkler pumps, firefighting lifts, evacuation lifts, fire detection and alarm, etc.). This will be achieved via a diverse route to the primary power supply.

5.6 Evacuation Alert System

An evacuation alert system complying with BS 8629:2019 will be provided to the West block, this system will assist emergency services to initiate a full building evacuation when required.

5.7 Smoke Control

5.7.1 Smoke Control to Common Corridors

Smoke venting to common corridors and stair lobbies of each block will be provided by either a mechanical smoke shaft or an automatically opening vent (AOV) on an external wall, in accordance with the recommendations of BS 9991.

Mechanical smoke shafts will typically have a cross sectional area of 0.6-0.8m^2 and an extract rate of 3-5m^3/s. This will be confirmed as part of the smoke control specialists detailed design as the project progresses.

5.7.2 Smoke Control to Basement

Mechanical smoke ventilation will be provided to vent smoke from the basement, it will:

- Provide ten air changes per hour;
- Be capable of handling gas temperatures of 300 °C for a continuous period of not less than 60 minutes;
- Operate automatically either on activation of the sprinkler system or by a fire detection and fire alarm system in accordance with BS 5839-1 at a minimum standard of L3.

5.8 Routine Inspection and Maintenance of Fire Safety Installations

Fire safety installations 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.

6.0 MEANS OF ESCAPE – RESIDENTIAL

6.1 Evacuation Strategy

The residential areas of the building will operate on a 'stay put' basis, this is applicable to the apartments in both student accommodation and residential block. Evacuation of apartments would normally only take place if the occupants became aware of the incident and chose to evacuate. However, an Evacuation Alert System (EAS) to BS 8629: 2019 will be provided for West block for fire brigade use and the fire brigade could use this system to evacuate any floors or floors within the buildings if they flet this was necessary.

Some occupants of other apartments may choose to leave if they hear the alarm or see smoke. However, they will be relatively few in number and it will not adversely affect the fire strategy principles.

6.2 Apartment Layouts

6.2.1 Individual Studio

West Block will be provided with individual studios. Building Regulations guidance recommends that cooking facilities in studio apartments will be located so that they do not prevent escape if they are involved in a fire. Kitchen hob locations will be assessed to ensure a fire will not obstruct evacuation, this will be supported by provision of suppression system and thermal cut off device for the hob. Travel distances within the studios will be limited to 20m.

6.2.2 Duplex Apartments

East Block will be provided with duplex apartments on ground and first floor. Protected stair is provided in the duplex and connects to exit directly to outside.

6.2.3 Open-Plan Apartments

East Block will be provided with open plan apartments. Following the recommendations of BS 9991, the open plan apartments will be designed as follows:

- Open-plan flat dimensions will not exceed 12m x 16m;
- The ceilings will be at least 2.25m above floor level;
- The escape route within apartments (total travel distance from any point to the apartment to the flat entrance door) will not exceed 20m;
- Apartments will be provided with an LD1 automatic fire and alarm system, following BS 5839-6;
- FD30S fire doors with self-closers will be provided to the apartment entrance doors.

6.3 Corridor Travel Distance

6.3.1 West Block

The single direction travel distance in some corridors of the West Block is up to 30m, which is over the BS 9991 guidance recommended travel distance limit of 15m. A push-pull smoke extract systems will be provided in the corridor as recommended in guidance to support the extension (clause 14.1.3 and A.3 of BS 9991). CFD modelling will be carried out at later design stage to ensure condition in corridor is suitable for escape and firefighting, a scoping study report will be prepared to ensure all stakeholders agree on the assumptions and parameters before carrying out the modelling.

For corridors with single direction travel distance within 15m, smoke ventilation will be provided by a smoke shaft or AOV at elevation.

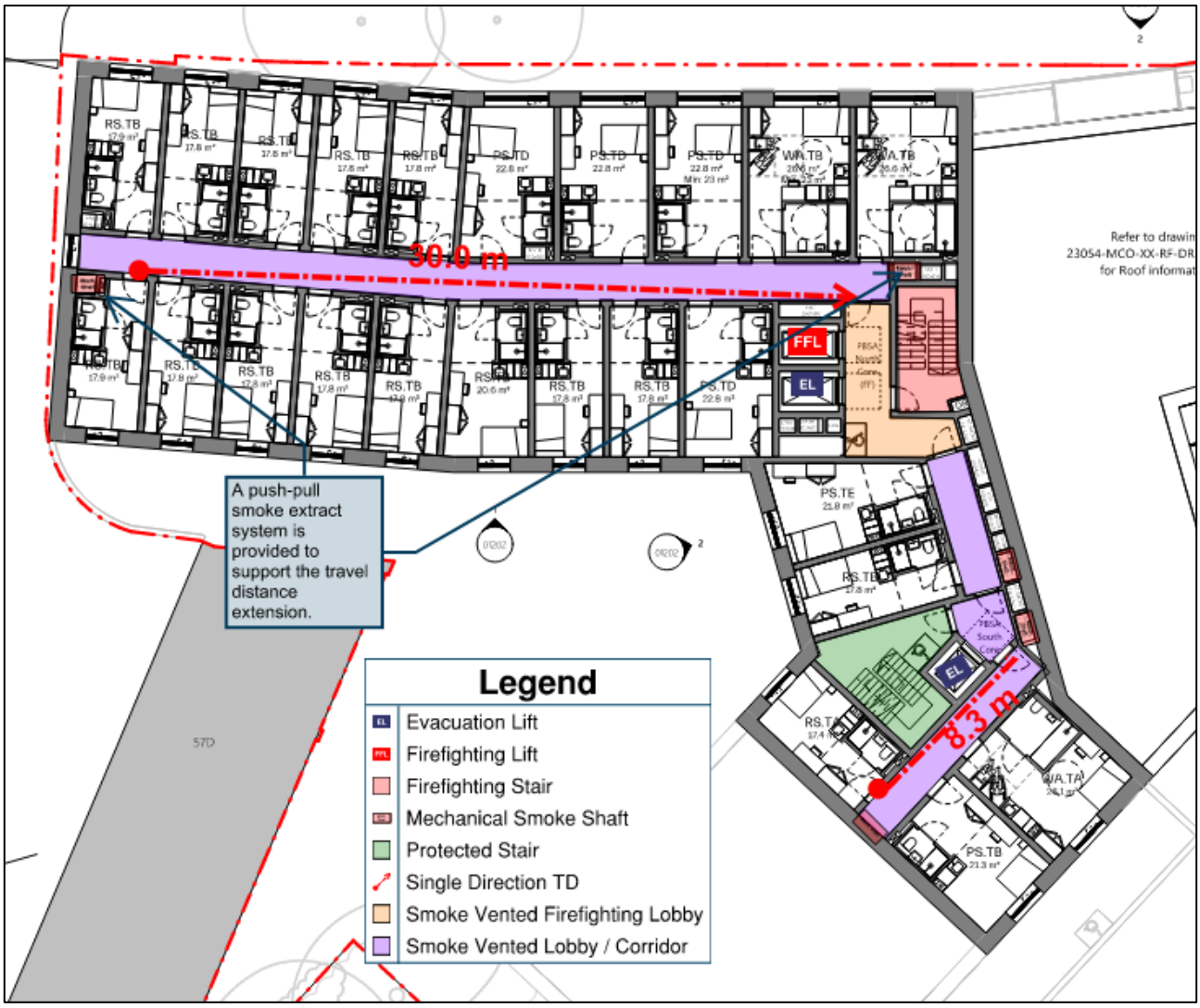

Figure 5: Corridor Travel Distance in West Block in L06

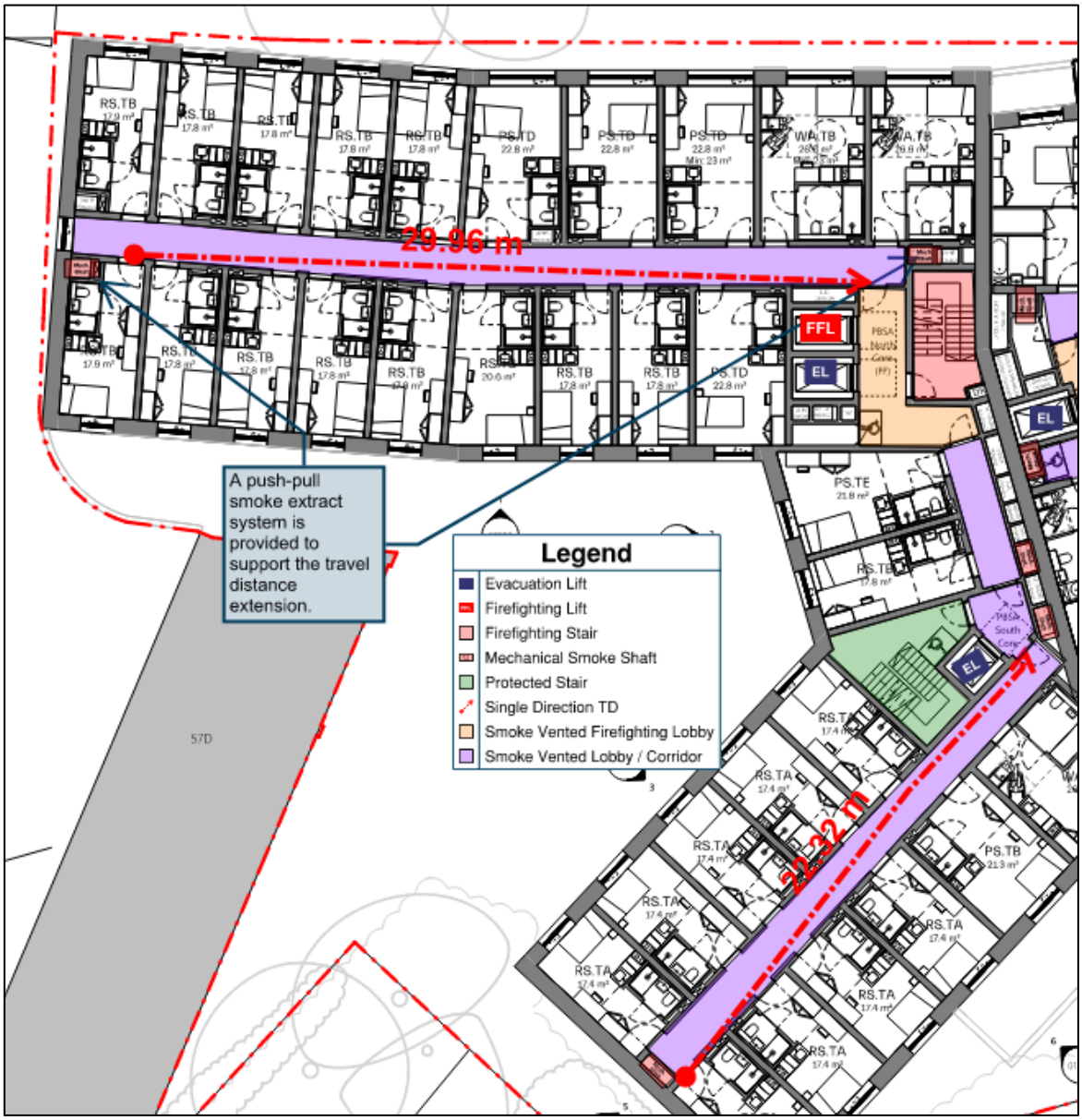

Figure 6: Corridor Travel Distance in West Block in Typical Floors Level 02-04

6.3.2 East Block

In East Block, escape for most apartments are via balcony deck into a smoke vented lobby connecting to the escape stair. There is no travel distance limitation on flat escaping through the balcony. Some apartments will escape via a smoke vented internal corridor into the stair lobby, travel distance in the corridor are well within 15m.

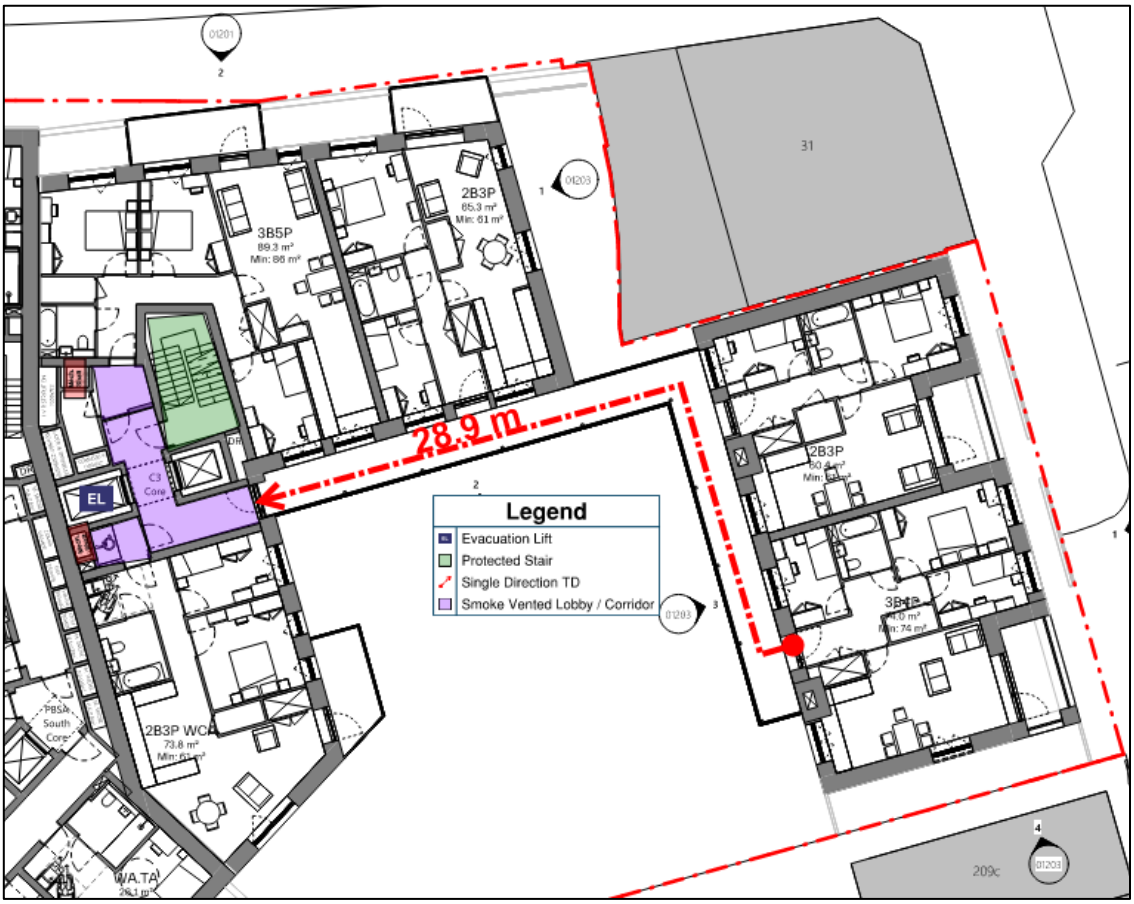

Figure 7: Corridor Travel Distance in East Block Balcony

6.4 Residential Stairs and Final Exit

The West Block will have access to two stairs, out of which one of the core will be a firefighting stair and both stairs will have a clear width of minimum 1.1m. Both stairs will discharge to outside directly or via a protected corridor. The escape stair will terminate on the ground floor whereas the firefighting stair will serve the basement as well. The firefighting stair discharges to Jamestown Road, the escape stair discharge into an external courtyard, where occupants can continue their escape to street at Arlington Road. The route from courtyard to Arlington Road is shown in Figure 9 below.

The East Block will have access to one stair. The part of stair serving upper floors and part of stair serving basement are physically separated. The stair will also be provided with a lobby at basement. The stair serving upper floors will discharge to courtyard via a protected lobby.

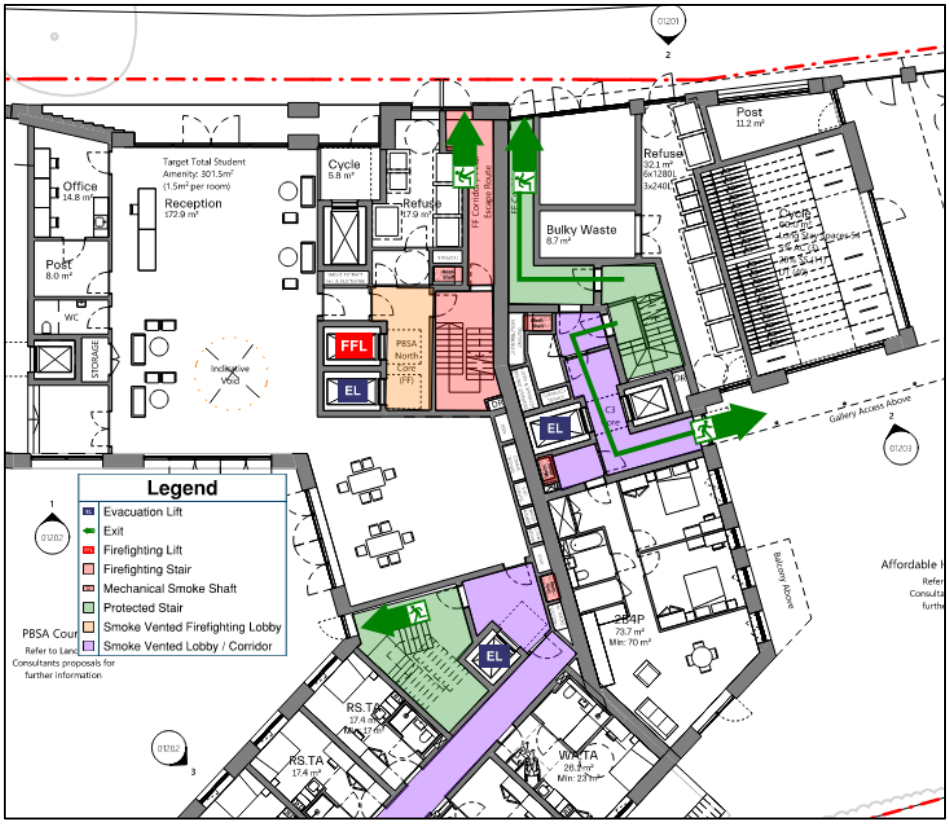

Figure 8: Final Exit on Ground Floor

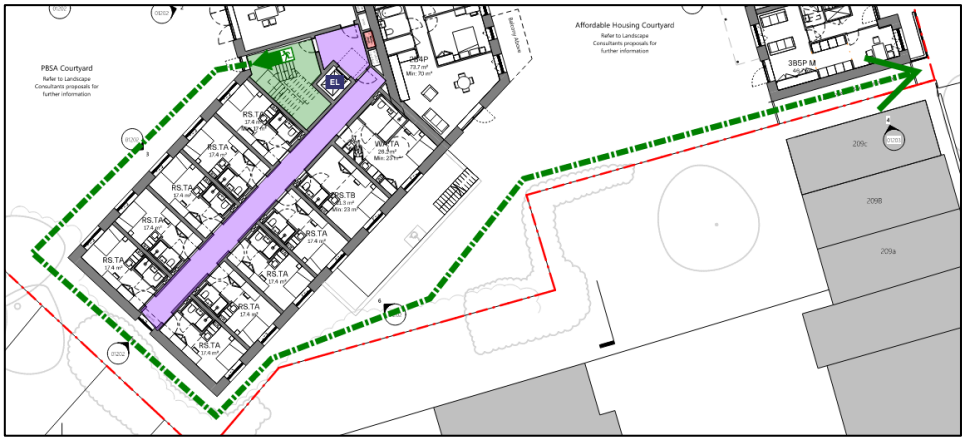

Figure 9: Exit Route from Courtyard to Arlington Road

6.5 Fire Safety Provisions for Disabled Occupants

Provision will be made for the means of escape of disabled occupants by the inclusion of a lift suitable for evacuation within the building in accordance with London Plan Policy D5 (B5). A management procedure will be developed as the projects progresses.

6.5.1 Residential

Each block is provided with one evacuation lift per core. In accordance with the London Plan 2021, occupants must be able to enter, use and exit a building safely with dignity, therefore the evacuation lifts in each core will be suitably sized. Lift capacity is assessed in below section.

The evacuation lifts are accessed from a lift lobby which is fire sterile, without connection to any apartment and service risers. The lift lobby and its connecting common corridors are also smoke vented to prevent smoke ingress to the lift lobby, such that any occupants waiting for the evacuation lift can do so in a safe environment.

6.5.2 Lift Capacity

The February 2022 GLA London Plan Guidance recommends the capacity of evacuation lifts is assessed. Whilst it is appreciated that in a tall building many occupants might be reluctant to use the stairs, the occupants will be made aware that they should not be using lifts in the event of fire.

At this stage, there is no accepted guidance as to the proportion of occupants who might need to use a lift to evacuate. It is understood that figures as low as 1% and as high as 10% have been assumed for a major transport project and for an assembly building with a high proportion of elderly persons, respectively. This is not a major transport project and a high proportion of elderly occupants is not expected. “Stay-put” evacuation strategy is adopted therefore only one apartment will require escape in the first instance, there could be occupants from a few other apartments decide to escape but a full building evacuation is not anticipated in the early stage. As evacuation will be managed, management would have the option of taking occupants down only 1 or 2 floors in the first instance to a place of safety below the fire floor to minimise the wait time for those waiting the lift. There are also a wide range of disabilities and a proportion of occupants who are unable to evacuate all the way to ground might well be able to descend one storey via the stairs to reach a safer space in which to wait for a lift. In view of these factors the provision of one evacuation lift per core serving each floor is considered to provide suitable capacity.

6.6 Assembly Point

Assembly point will be located on the road’s adjacent to final exit of each block which is in line with London Plan Policy D12, Subsection A1 (b).

7.0 MEANS OF ESCAPE – NON-RESIDENTIAL

7.1 Evacuation Strategy

Ancillary and amenity areas will evacuate immediately in the event of an alarm signal from these spaces. However, an alarm within these areas will not result in a full evacuation of the rest of the building and vice versa.

7.2 Travel Distance

Travel distance in the non-residential areas will be within the recommended limit of BS 9999 as per below:

Area/Zone	Risk Profile	One Way Travel Distance	Two Way Travel Distance
Cycle Store	A1	26m	65m
Plant Room	A3	18m	45m

Table 3: Travel Distance Requirements

Occupants from basement cycle store and plant rooms at the north-east side can escape using the firefighting stair or via the accommodation stair within the flexible area. The travel distance from the furthest corner in the plant room via the accommodation stair to outside at ground level is within the 45m limit.

Occupants at south side of the West block can escape via an external stair leading to courtyard at ground level. The escape routes and travel distances are illustrated below.

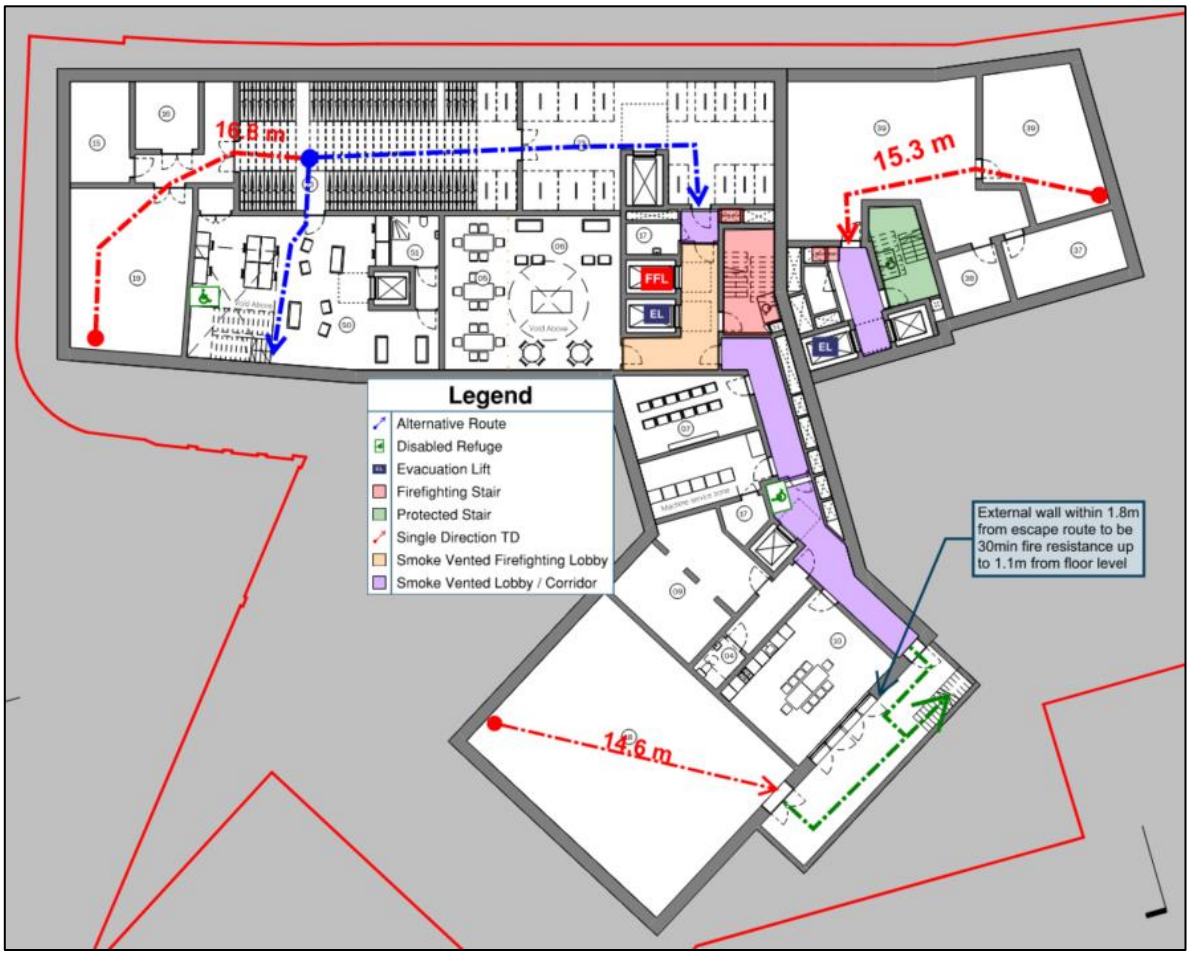

Figure 10: Travel Distance in Basement

7.3 Horizontal Exits

The exit widths and the number of storey exits are within the limits of BS 9999 in the non-residential areas.

7.4 Stairs

The number of stairs and the stair width from the non-residential areas are within the limits of BS 9999.

7.5 Provision for Disabled Occupants

Disabled refuges measuring 900mm x1400mm will be provided in each stair at levels with non-residential areas, with voice communications to assist disabled occupants. A management procedure will be developed to assist the disabled occupants in an event of a fire. All evacuation lifts also serve basement.

8.0 PASSIVE FIRE PROTECTION MEASURES

8.1 Construction Materials

As required by the London Plan D12 B1, this section sets out the building's construction method and products and materials used as summarised below.

ELEMENT	DESCRIPTION
Building Structural Frame	Reinforced concrete frame
External Wall Construction	To be confirmed in detail design (Regulation 7(2)compliant)
Roof Construction	Reinforced concrete frame

Table 4: Construction Methods & Primary Materials

The proposal for external wall will be predominantly brick, featuring texture and detailing to the street, with a paired-back approach to the courtyards. Materials used for external wall construction will comply with Regulation 7(2).

Building materials will be required to achieve the minimum standard for fire resistance as outlined within this statement for passive fire protection. All internal linings, external wall materials and roof coverings will achieve the minimum requirements of Building Regulation guidance documents, as discussed in this report.

Building methodologies will be designed with consideration to fire safety of the neighbouring building and adjacent areas.

8.2 Structural Fire Resistance

Elements of structure in both blocks will achieve 60 minutes fire resistance.

8.3 Compartmentation

Compartmentation will be provided as set out in the table below.

The flexible area and its adjacent student amenity/ reception area are double-height spaces at basement and ground level. These areas will form its own compartment and 60 minutes fire resistance enclosed.

Fire Resisting Element	Fire Resistance Period	Fire Doors
All floors will be designed as compartment floors	60	N/A
Double-height flexible area	60	FD60
Double-height student amenity/ reception area	60	FD60
Firefighting Stair	120	FD60S
Protected Stair	60	FD30S
Firefighting Lift	120	FD60
Life safety plant rooms	120	FD60
Any shaft penetrating compartment floors	60	FD30 (S where opens into protected corridor or lobby) Or FD60S for smoke shafts

Fire Resisting Element	Fire Resistance Period	Fire Doors
Walls between non-residential and residential area	60	N/A
Walls between apartments	60	N/A
Walls separating apartments from all other areas	60	FD30S
Wall between East and West Block	60	N/A
Protected Entrance Hallways/ Duplex stair	30	FD30
Refuse Store	60	FD60
Cycle Store	60	FD60

Table 5: Compartmentation within the buildings

8.4 Fire Stopping

Fire Stopping will be provided to maintain the integrity of the fire separating elements in accordance with the recommendations of BS 9991. Proprietary fire-stopping and sealing systems (including those designed for service penetrations are available and may be used provided that they achieve the appropriate level of fire resistance.

8.5 Cavity Barriers

Cavity Barriers will be provided in concealed ceiling voids, floor voids and external walls in accordance with recommendations of BS 9991. Proprietary fire-stopping and sealing systems (including those designed for service penetrations) are available and may be used provided that they achieve the appropriate level of fire resistance.

8.6 Wall and Ceiling Linings

Wall and ceiling linings will achieve the following surface spread of flame classifications according to current BS EN 13501-1, in line with standard guidance.

Location	Tested to BS EN 13501-1
Small rooms of maximum internal floor area of $4m^2$	Class D-s3, d2
Circulation spaces with a dwelling	Class C-s3, d2
Other circulation spaces (including the common areas)	Class B-s3, d2

Table 6: Classification of Linings

9.0 EXTERNAL FIRE SPREAD

9.1 External Wall Materials

The materials used in the external wall construction of all buildings will achieve Class A1 or Class A2-s1, d0 with exception of the materials listed in Regulation 7(3).

9.2 External Fire Spread

The amount of unprotected area permitted on the building elevations will be calculated using the Tables method of BR 187:2014: External Fire Spread – Building Separation and Boundary Distances to prevent fire spread between buildings. The enclosing rectangle method will be used to calculate the maximum amount of unprotected areas on the building elevations based on compartment size and the boundary distances.

9.3 Roof Coverings

Roof coverings will be in accordance with current BS 9991: 2015 and will achieve a Broof(t4) classification.

10.0 ACCESS AND FACILITIES FOR FIRE SERVICES

10.1 Firefighting Core

East block will not be provided with a firefighting shaft as the building height is less than 18m and there is no requirement to provide one as per guidance. However dry riser will be provided in the stair for firefighting use.

West Block will be provided with a firefighting shaft as the building height is more than 18m and this will include:

- Firefighting lift including backup power supply located within 7.5m of the door to the stair on all floors.
- 1.2m wide firefighting stair.
- 2 hours fire resisting enclosure around the stair and the firefighting lift.
- Dry riser located within 18m and the inlet to replenish the wet fire main will be visible from a fire vehicle parking position.
- A 1m^2 automatically opening vent located at the head of the stair.

For both blocks, each floor will be provided with a maximum hose coverage of 60m from the fire main outlet provided at each floor level.

Wayfinding signage for the fire service will be in accordance with the recommendations of the Approved Document B Section 15.13 to 15.16.

10.2 Fire Service Access

Fire vehicle access is available to the building as shown in the figure below. This will allow fire vehicles to park within 18m an insight of all fire main inlets and access points to the stair entry points.

Premises information will be provided near access to the firefighting cores.

Figure 11: Fire Vehicle Access

10.3 Fire Mains and Hydrants

A water supply will be provided from a public fire hydrant designed to meet BS 9990: 2015 (*Non automatic fire-fighting systems in building. Code of practice*).

Fire hydrants will be within 100m of each dry riser inlet. There is an existing hydrant at Jamestown Road within 100m of the proposed dry riser inlet location however its condition is to be confirmed.

A maintenance regime for all active fire safety measures will be developed in due course.

11.0 FIRE SAFETY MANAGEMENT

It is a fundamental assumption that features described in this Fire Statement will require management and maintenance throughout the life of the building. This is to ensure any potential future modifications to the building will take into account and not compromise the base build fire safety/ protection measures.

Managing fire safety is the whole process throughout the life of a building, starting with the initial design, which is intended both to minimize the incidence of fire and to ensure that, when a fire does occur, appropriate fire safety systems (including active, passive, and procedural systems) are in place and are fully functional.

12.0 FUTURE PROOFING – GOLDEN THREAD OF INFORMATION

In line with the recommendations for providing a 'golden thread' of information, digital records of the fire safety components during the design and construction phases will be recorded. Records will be initiated by the relevant duty holders during the design and construction phase. On completion of work the records will be handed over to the building owners to maintain for the life of the building.

A Fire and Emergency File (FEF) will be established for this development to record prevalent information throughout the design, construction and life of the building. The FEF will include this fire statement and subsequent fire strategies as outlines of the key fire safety design provisions of the building, including assumptions of fire loads, occupant characteristics, evacuation strategies, passive fire safety measures, active fire safety systems, fire safety equipment, key fire properties of building materials, access for fire and rescue services. As the design develops relevant documents shall be recorded including technical specifications and product datasheets, detailing specific information on the building materials, safety systems and equipment. On completion of construction the commissioning documents and the operation and maintenance manuals shall be recorded. Throughout the life of the building regular inspections and maintenance are required to ensure the fire strategy is upheld and fire safety systems are operational. Records of inspections, fire risk assessments and maintenance work shall be recorded.

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

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.

13.0 INFORMATION, LIMITATIONS AND ASSUMPTIONS

The information limitations and assumptions used in the preparation of this report are noted below: -

Drawings

This report is based on drawings issued to us. Dimensions have been taken from these drawings. The following drawings were used: -

Drawing Number	Drawing Title
23054-MCO-XX-B1-DR-A-01109	Proposed Plan Level B1
23054-MCO-XX-B1-DR-A-0610	Proposed Plan Level 00
23054-MCO-XX-B1-DR-A-0611	Proposed Plan Level 01
23054-MCO-XX-B1-DR-A-06112	Proposed Plan Level 02-04
23054-MCO-XX-B1-DR-A-01615	Proposed Plan Level 05
23054-MCO-XX-B1-DR-A-01616	Proposed Plan Level 06
23054-MCO-XX-B1-DR-A-06120	Proposed Plan Level Roof Level

Information

The following information was used for the preparation of this report: -

Survey (Existing Building)

This building has not been surveyed by Jeremy Gardner Associates Limited.

Building Regulations

This report considers building regulations, which deal with life safety. Property protection and insurance issues are not addressed in this report. Guidance on property protection and insurance requirements can be found in the document *Approved Document B: Fire Safety (Volume 2) – Buildings other than dwellinghouses Incorporating Insurers' Requirements for Property Protection,* RIBA Publishing 2015.

Other Limitations

Complying with the recommendations of this report will not guarantee that a fire will not occur.

Unless otherwise described in this report, the fire strategy assumes that the building design, the mechanical and electrical systems, construction methods and materials specifications will comply with current Building Regulations guidance, and relevant British Standards and Codes of Practice. The design of mechanical and electrical systems such as fire alarm and sprinklers is a specialist area. Fire Strategy recommendations are given in this report, however, the design and specifications need to be developed at the appropriate stage in consultation with the specialist designers of these systems.

This report has been prepared for the sole benefit, use and information of Jamestown Road Ltd and the liability of Jeremy Gardner Associates Limited, its directors and employees in respect of the information contained in the report will not extend to any third party.

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