

Project No:	230420
Document No:	MZ-230424-02-LNP-01-ISS01
Date:	09/10/2024
Issue No:	01

Sir Frederick Messer - London Plan Fire Statement

1. Introduction

Maze Fire Consulting has been appointed by the London Borough of Haringey to provide a London Plan Fire Statement for the Sir Frederick Messer development on Seven Sisters Road, London. The development consists of a new residential scheme providing two low-rise blocks of flats.

The aim of the Fire Statement is to clearly communicate to the Planning Authority that the design of the building project demonstrates an understanding of the matters listed in Planning Policy D12 of The London Plan 2021 (March 2021), and this will be achieved by documenting strategic fire safety provisions for the development. The statement declares that the fire safety strategy satisfies the requirements of London Plan Policy D12 and the building has been designed to incorporate features which will mitigate the risk to life and the risk of serious injury in the event of a fire.

This fire statement will outline the minimum fire safety provisions required for the proposed development to be compliant with the Functional Requirements of the Building Regulations 2010 (as amended) using the guidance contained in BS 9991 (2015 and with reference to the Draft 2021 version) and associated British Standards.

The fire strategy report covering the proposed works and outlining the fire strategy for the building is covered in the Maze Fire *Sir Frederick Messer Fire Safety Strategy* (Ref: MZ-230424-02-FSS-01-ISS01 Date: 22/08/2024)

2. Project Description

The proposed development involves the construction of two new residential blocks of flats consisting of the following:

- Block 01: Ground plus five upper storeys, with a height of 15.75m to the floor level of the topmost storey. This block is provided with flats from Ground Floor upwards surrounding a single common escape stair with open balcony approach on the upper levels. The block also contains stores at Ground Floor.
- Block 02: Ground plus five upper storeys, with a height of 16.065m to the floor level of the topmost storey. This block is provided with flats from Ground Floor upwards surrounding a single common escape stair with open balcony approach on the upper levels. The block also contains plantrooms and stores at Ground Floor.

Ground floor and typical floor layouts are shown in the following figures.



Figure 1: Ground Floor Plan

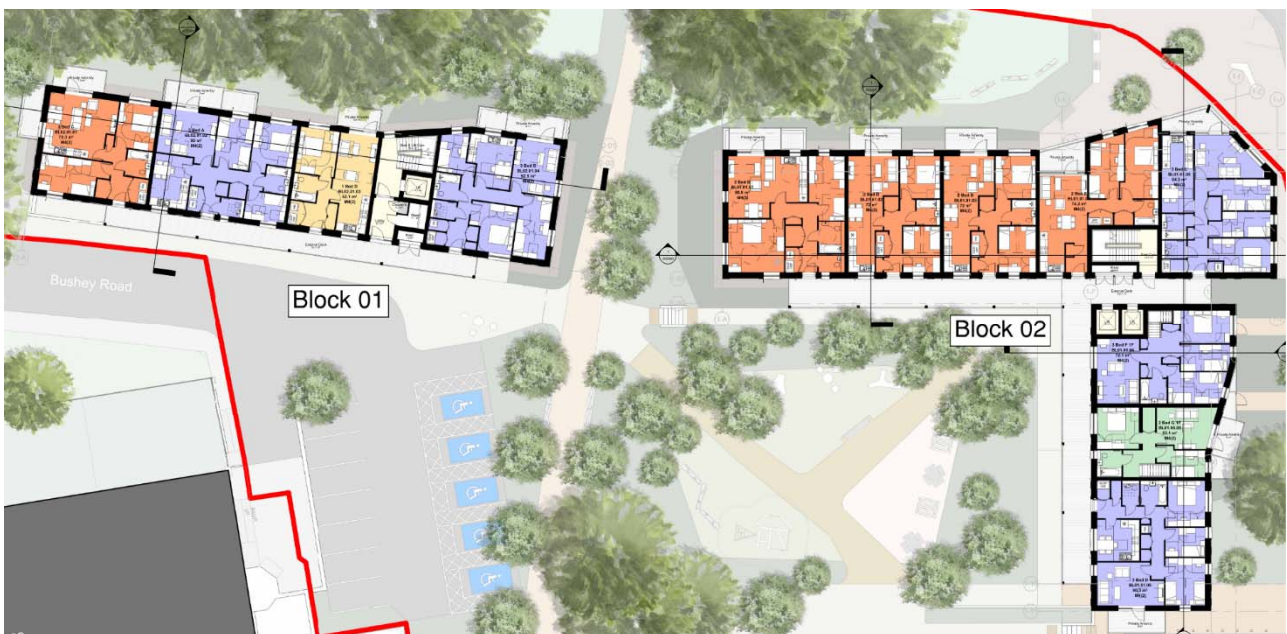


Figure 2: Typical Upper Floor Plan

3. London Plan Fire Statement

This London Plan statement has been prepared by Alex Manning (BSc (Hons) AIFireE) and Ben Rogerson (MEng (Hons) CEng MIFireE APAEWE).

The declaration of compliance has been included in Section 4.

The following sections are prepared to align with the London Policy Plan 12B in the following five sections.

3.1 Methods of Construction

The building is to be of steel and concrete construction.

All blocks are to be provided with sprinkler protection to BS 9251:2021 and are all under 30m high. Therefore, in accordance with BS 9991, 60 minutes fire resistance will be applied to the structural elements in the building.

Compartment floors are required to provide 60 minutes fire resistance, and 60 minutes compartmentation will be required to the ancillary accommodation at Ground Floor. 60 minutes fire separation will also be provided between flats and all other areas with FD30S fire doors.

Stair cores which pass between floors are required to provide 60 minutes fire resistance with FD30S fire doors. 30 minutes fire protection will be provided between flats and the open balcony escape routes, up to 1100mm high from balcony level.

Places of special fire hazard are to be enclosed in a minimum of 30 minutes fire resistance with FD30S doors, this will include plant rooms and stores.

PV panels are proposed for the scheme and will be designed to Class B as per the UL1703 guidance (UL 1703 Standard for Flat-Plate Photovoltaic Modules and Panels).

3.2 Means of Escape

3.2.1 Requirements

In order to ensure the safety of the building occupants, Policy D12 of the London Plan (March 2021) requires all developments to achieve the highest standard of fire safety and ensure the following:

- *Section A, Item 5: provide suitable and convenient means of escape, and associated evacuation strategy for all building users.*
- *Section A, Item 6: develop a robust strategy for evacuation which can be periodically updated and published, and which all building users can have confidence in.*
- *Section B, Item 2: Means of escape for all building users and the evacuation strategy.*

3.2.2 Maze Comments

In response to the requirements stated above, the following comments have been made to demonstrate how the design affords adequate escape provisions for occupants in line the guidance in Policy D12 of the London Plan.

The evacuation will be based on a stay put evacuation strategy for the blocks of flats, with only the fire-affected flat being alerted and evacuated. Other residents can remain in place unless they feel unsafe, or until instructed otherwise.

Exits providing access to a means of escape, other than exits in ordinary use (e.g. main entrances), shall be distinctively and conspicuously marked by an exit sign in accordance with BS ISO 3864-1 and BS 5499-4.

Minimum Height of Escape Routes

A minimum clear height of 2.0m shall be maintained throughout the escape routes.

Minimum Number of Exits

Any room or storey will be provided with a minimum of:

- One exit where the occupancy is less than 60 people;
- Two exits where the occupancy is greater than 60 people; and
- Three exits where the occupancy exceeds 600 people.

Doors Opening Direction

Any doors used by more than 60 people should open in the direction of escape. Doors should also not reduce the minimum width of the means of escape when open.

Changes in Level

Single steps will be avoided, where possible, but if provided, they will be appropriately marked.

Means of Escape

All exit routes will follow the guidance of BS 9991, with regards to exit widths and travel distance. It is confirmed that the current design meets the travel distance limits in BS 9991 for a single stair/balcony approach (45m constraint based on hose distances for fire service).

Measurements taken from the latest architectural drawings indicates that the travel distance limits stated in BS 9991 are met when measured from the furthest point to a storey or final exit.

The stairs serving Blocks 01 and 02 will have a width of at least 1000mm as recommended by the guidance.

Disabled Egress

Both blocks will be provided with an evacuation lift to allow occupants to self-evacuate in the event of a fire.

3.3 Passive and Active Fire Safety Measures

3.3.1 Requirement

- *London Plan Policy D12 – Section A, Item 3: 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.*
- *London Plan Policy D12 – Section B, Item 3: Provide features which reduce the risk to life: fire alarm systems, passive and active fire safety measures and associated management and maintenance plans.*

3.3.2 Maze Comments

Sprinkler protection will be provided throughout all blocks and units in accordance with BS 9251: 2021, to a Category 2 standard. and any non-sterile communal parts of the building should be protected as category 3.

A Grade D1, Category LD2 detection and alarm system is proposed for all blocks in line with the recommendations of BS 5839-6 for a new build – Residential (dwellings) development.

Audible warning will be provided to the development using sounders in accordance with BS 5839-6. The audible warning is necessary only for the apartment of origin of the smoke/fire detection.

Emergency lighting will be provided as necessary to cover all escape routes, internal and external in accordance with BS 5266 Part 1 and BS EN 1838 to enable occupants find their way out of the building should there be a power failure following a fire.

All life safety systems will be required to comply with their respective British Standards which require back-up power supply.

The common stairs will each be provided with a 1m² AOV at the head of the stair. The corridors serving the flats are an open balcony approach following the guidance in BS 9991 for flats with balcony or deck access.

A BS 5839-1: L5 alarm system should be installed in the stair common lobbies to activate the AOV at the top of the stair. This system should not feature an audible alarm in keeping with the stay-put policy.

In order to limit the spread of fire and production of smoke in particular areas, restrictions are placed on the wall and ceiling lining materials within certain areas of buildings. All wall and ceiling linings in the building should meet the recommendations of BS 9991.

Loadbearing elements of structure shall achieve 60 minutes fire resistance as specified in BS 9991 when tested in accordance with the relevant part of BS 476, BS EN 1363, BS EN 1364, BS EN 1365 or BS EN 1366.

Non-loadbearing elements of structure will align with the fire resistance ratings given in BS 9991. Please refer to the architectural fire plans for details of which elements/walls are specified as fire resisting walls.

Cavity barriers shall be provided as per the recommendations of BS 9991 in order to restrict the unseen spread of fire and smoke spread through concealed spaces.

Joints between elements that serve as a barrier to the passage of fire as well as any openings for pipes, ducts, conduits or cables passing through these barriers shall be fire-stopped using appropriate certified fire stopping products.

3.4 Access for Fire Service Personnel and Equipment

3.4.1 Requirements

- Section A, Item 1: identify suitably positioned unobstructed outside space for fire appliances to be positioned on
- Section A, Item 7: Provide suitable access and equipment for firefighting which is appropriate for the size and use of the development.
- Section B, Item 4: The Fire Statement must clearly identify the emergency access routes to the site, including contingency routes and access in the event the primary route is blocked. The Fire Statement must identify all active measures included for use by the fire and rescue service.
- Section B, Item 5: The Fire Statement must clearly identify the emergency access routes within the site and to individual buildings for the fire and rescue service.

3.4.2 Maze Comments

Direct road access from Seven Sisters Road is available for the fire service to access Blocks 01 and 02 as shown in Figure 3.

Both blocks will be provided with dry rising mains. Parking for the fire service will be available within 18m of the dry riser inlet points. The hose distance from dry riser outlets will be within 45m to all points within the flats.

An existing fire hydrant is provided on Seven Sisters Road, which is within 100m of the dry rising main inlets for each block.



Figure 3: Fire Service access points (red arrows) to stairs with dry risers (green) and approximate hydrant location (H)

3.5 Fire Safety Management and Future Development

This part of the statement is concerned with the management of fire safety measures in the building, i.e. those elements necessary to ensure a satisfactory standard of fire protection.

Effective arrangements shall be put in place to manage all aspects of fire safety in the premises and the details of those arrangements shall be recorded in a Fire Management Plan. The arrangements will include some of the following key areas:

- Development of a suitable emergency procedure, including an evacuation plan.
- Maintenance contracts for essential fire safety systems and equipment.
- Schedule of in-house checks and test
- Communication arrangements
- Control of works on site (e.g. permit to work)
- Contingency plans
- Preparation of personal emergency evacuation plans (PEEPs) for staff and visitors as necessary.

The fire strategy for this building will be revisited should any of the following happen:

- The use of the building changes.
- The occupancy of the building increases.
- Major refurbishment/alteration/extension that will involve omitting or moving doors, structural alterations, change to internal arrangements or commencement of keeping explosives or highly flammable materials.
- Areas in disuse.

4. Declaration of Compliance

The fire strategy for the proposed works at the Sir Frederick Messer development on Seven Sisters Road, London, has been written in line with the guidance in BS 9991 (2015 edition and with reference to the Draft 2021 version) as well as the fire safety information provided which is considered to satisfy the requirements of the London Plan Policy D12.

Alex Manning (BSc (Hons) AIFireE) is the Project Owner who has prepared this Fire Statement. Alex has over 20 years of experience in fire engineering. Alex is an Associate Member of the Institution of Fire Engineers. Projects include Airport terminals, Commercial and residential buildings, Education and research facilities, Hospitals, and Warehouse and distribution centres.

Ben Rogerson (MEng (Hons) CEng MIFireE APAWE) is the Project Reviewer for this Fire Statement. Ben has 17 years of experience in the fire industry, is a Chartered Engineer and Member of the Institution of Fire Engineers membership number 78447.

Maze Fire will assist the design team in ensuring that all development agreements, development briefs and procurement processes shall incorporate the highest standard of fire safety.

Quality Management

Version	Date	Information about the proposal		
01	09/10/2024	Reason for issue:	First Issue.	
		Prepared by:	Alex Manning Associate	
		Reviewed By	Ben Rogerson Associate	

Validity

This document is formulated on the basis of the information and experience available at the time of preparation. It is applicable to the above-mentioned project only in accordance with the client’s instructions. It is only valid provided no other modifications are made other than those for which a formal opinion has been sought and given by Maze Fire Consulting Limited.

Project Office

UK ☒

E: info@mazefire.com

Ireland ☐

E: info@mazefire.com

Registered in England & Wales, Company No: 14141136

Registered in Ireland, Company No: 721698

