

## **Fire Provision**

### **100 Avenue Rd, Swiss Cottage, London**

The proposed new residential building at 100 Avenue Road, Swiss Cottage, Planning Application Reference: 2018,4239/P, will be provided with the following fire safety measures to protect the residents/ occupiers and assist the Fire Brigade to deal with an incident. The legislation and guidance used for the fire design relating to the construction of the building are approved document B (building regs) and B.S 9991.

### **Fire Resistance and Compartmentation**

The proposed buildings at 100 Avenue Rd, Swiss Cottage will have structural elements of fire resistance (supporting walls, columns and floors) of 120 minutes for the 24-storey tower block and 90 minutes for the Part 5, Part7-storey lower block 90 minutes, in line with Building Regulations. Any commercial areas will be separated from residential accommodation by the same fire resistance as the elements of structure.

Each apartment will be a 60-minute fire resisting compartment and lead directly onto a 60-minute fire resisting corridor with 30-minute fire resisting self-closing doors. All upper floor staircases in each block will be of 120-minute fire resistance with 60-minute fire resisting self-closing doors. The basement staircase will be of 90 minutes fire construction with 60-minute fire resisting self-closing doors. All the substantial components making up the external walls of each of the blocks are to be limited combustibility in nature.

All penetrations through fire resisting walls and floors and from service risers will be suitably fire stopped to the correct level of fire resistance.

### **Building Separation and Unprotected Areas**

Calculations have been carried out to ensure the buildings are adequately spaced from other buildings in the area and that the amount of unprotected wall areas are acceptable.

### **Fire Suppression**

Due to the height of the tower block being more than 30 m, a water mist sprinkler system will be fitted throughout that building, the system will be enhanced by additional coverage of circulation spaces, a one-hour additional water supply and back-up system pump. Whilst the lower block and Winch do not require suppression due to height, these will also be fitted with a water mist system sprinkler to control and suppress any fire, with the exception of the commercial occupied areas.

The systems will be fitted, tested and inspected in accordance with the current British Standard.

### **Fire Alarm and Detection**

All apartments will be fitted with smoke and heat detection to give early warning to residents. The corridors in each block will be fitted with smoke detection to operate mechanical smoke control. All ancillary areas, basement and the Winch will be fitted smoke detection and manual fire alarm call points to an L2 standard.

All fire alarm systems will be fitted and tested in accordance with the current British Standard.

### **Portable Firefighting Equipment**

Portable firefighting equipment will be supplied in ancillary and reception areas throughout the building in line with the current British Standard.

### **Secondary Power Supplies**

Secondary power for life safety systems will be supplied.

### **Means of Escape Provided**

There are a total of 12 external exit doors available from the lower block and 5 external exit doors from the tower block. Fire detection systems are fitted throughout to provide early warning and assist in the means of escape if required. The protected corridors are fitted with mechanical smoke control to assist any residents to escape. Each of the protected staircases will discharge at the base to ultimate safety outside the building and be fitted with an automatic opening vent at the head of the stair. All escape routes are of an adequate width to evacuate all the occupants and are also fitted with fire exit signage and escape lighting. The emergency lighting will be tested in accordance with the current British Standard.

### **Management and Training**

The premises will be subject to a Fire Risk Assessment under the Regulatory Reform (Fire Safety) Order by a competent third party accredited fire risk assessor on a regular basis.

The managing staff will maintain all life safety equipment in accordance with the current British Standards and receive fire safety training as required.

### **Fire Brigade Facilities Provided**

All staircases within each of the block, except the basement stair to the Winch, will be fire-fighting shafts of 120 minutes fire resistance and contain a wet rising main in the tower block and to the Winch and dry rising mains to the residential in the lower block, automatic ventilation with a fire brigade override and a fire-fighting lift. Protected corridors will be provided with smoke control to assist safe access to any incident. The basement will be provided with smoke control to assist in ventilation in the event of a fire.

There is access from the street to each building and the inlet for the wet rising main will be located on the front face.

A premises information box will be provided either in the entrance lobby close to the entrance doors, or near the concierge in the case of the tower block with the following information: fire and rescue service operational plan for the building, simple floor plan layouts, relevant fire resistance provisions, internal access provisions, fire-fighting facilities, building services, any specific hazards, information relating to equipment provided for means of escape or fire-fighting (including operating instructions); and information relevant to mitigating loss and assisting salvage operations.