

Station Hill, Reading. Fire Safety Statement for Planning.

1. Introduction.

This fire safety statement has been prepared to accompany applications for Reserved Matters Approval for Blocks E and F of the approved Station Hill development. The Outline scheme has considered fire safety from the outset to ensure the parameter plans and design codes allow for a successful and safe scheme to be developed at reserved matters stage.

This outline fire statement addresses the main fire safety items and principles and provides an overview of the requirements and recommendations the scheme will need to meet.

The scheme for Blocks E and F will encompass two plots (as shown in Figure 1), with each plot comprising five building cores of differing heights and hence number of storeys. The proposed maximum AOD height for both Block E and Block F is 82.7m (43.7m from lower ground level, 37m from ground level). This has resulted in building core heights of between six and twelve storeys proposed within the scheme. Note that the core heights are taken from ground level, both blocks have a lower ground level while Block E also has two mezzanine levels above ground but below the podium.

The fire safety strategy for the Station Hill development will be based on the guidance of Approved Document B (2006) Volume 2[4], BS 9991:2015[1] and BS 9999:2017[2].



Figure 1: Station Hill development.

2. Fire safety overview.

2.1 Residential accommodation.

The fire safety provisions and strategy for the residential buildings will be based on the guidance of BS 9991. The residential accommodation includes floors with apartments that can be accessed from multiple staircase cores at lower levels and floors with apartments that are accessed from a single staircase core at the upper levels. Both Blocks E and F have upper floors at a height greater than 30m above the fire and rescue service access level at ground level and therefore sprinkler protection will be provided throughout the buildings.

The residential buildings will operate on an evacuation philosophy which is in accordance with the current fire safety design guidance. That is, upon activation of the fire alarm and detection system, only occupants in the apartment of fire origin will be signalled evacuate. The buildings will be designed such that occupants of other apartments are safe to remain in place, and would only exit the building if they choose to do so or are otherwise instructed to by the fire and rescue service.

Following an initial review of the proposed plans and the scheme, the residential common corridor travel distances are within the maximum permissible distances permitted by supplementary design guidance and supported by a fire engineering analysis.

2.2 Amenity and community use spaces.

Both blocks have amenity spaces, as well as residential accommodation. The fire safety strategy for these spaces will be developed based on the guidance of BS 9999.

The fire safety strategy will be developed to ensure that the means of escape from these areas and from the residential accommodation in Blocks E and F do not compromise each other. Disabled refugees will be provided for the accommodation in accordance with BS 9999 guidance.

2.3 Retail units and leisure space.

The plans show that retail premises and leisure space will be provided at the ground floor level of both blocks. The fire safety provisions and strategy for retail units will be based on the guidance of BS 9999.

2.4 Car parks.

The lower ground and mezzanine levels of Block E comprises car parks which will be provided with a mechanical smoke ventilation system. The smoke ventilation strategy for the car park will be developed in accordance with relevant design guidance.

2.5 Structural fire protection.

The loadbearing elements of structure for Blocks E and F will have a minimum period of 120 minutes fire resistance, in accordance with appropriate guidance documents.

2.6 External fire spread.

Spread of fire between buildings.

The fire safety strategy will include a space separation analysis to establish the necessary boundary distance around each building. At this stage, there is not considered to be significant risk of spread of fire between buildings from the accommodation; however, detailed analysis or an engineered solution will be provided at building regulations stage.

Insulation materials/products.

Blocks E and F within the Station Hill development will have sufficient storeys such that the buildings exceed 18m in height. External walls will be constructed using non-combustible materials as specified in the 2018 amendments of Approved Document B.

In addition, the external wall surface will achieve European Class A2-s1, d0 or Class A1 when classified in accordance with BS EN 13501-1:2007+A1:2009[5].

2.7 Access and facilities for the fire and rescue service.

All cores of Blocks E and F will be provided with dry risers. Fire and rescue service vehicle access should be provided to within 18m of fire main risers inlets, located beside a firefighting building entry point. A preliminary review of the site plan indicates several options to achieve fire and rescue service vehicle access, with the current preferred option being from either roadway or podium closest to the core.

Firefighting shafts will be provided as per the guidance of Approved Document B, BS 9991 and BS 9999 to assist the operations of the fire and rescue service. Firefighting shafts as standard comprise:

- a firefighting staircase;
- a firefighting lift;
- a firefighting common corridor;
- fire main riser outlets at every storey;
- smoke ventilation to the firefighting staircase; and,
- smoke ventilation to the firefighting common corridor, using mechanical smoke extraction systems.

Firefighting shafts will be enclosed in construction with a minimum period of 120 minutes fire resistance, while elements of the firefighting shaft will be separated by construction with a minimum period of 60 minutes fire resistance.

2.8 Construction, design and management regulations.

Design projects undertaken in the UK are subject to the requirements of the Construction (Design and Management) Regulations 2015[6], the objective of which is to ensure that health and safety issues are properly considered during a project's design and development so that the risk of harm to those who have to construct, use and maintain the building is reduced.

As a designer, in accordance with Regulation 9 of the CDM regulations, Hoare Lea Fire will take into account the general principles of prevention in the preparation of this report and where reasonably practicable, eliminate, minimise and/or control foreseeable hazards associated with the design. Where elimination is not reasonably practicable, Hoare Lea Fire will be required to provide 'pre-construction' information in respect of any significant and/or unusual project-specific hazards that remain.

3. Conclusion.

This fire safety statement has been prepared to outline the approach and provisions relating to fire safety for Blocks E and F at the Station Hill development in Reading, following a review of the parameter plans and scheme plans.

This statement demonstrates that the proposals have considered fire safety at the earliest stage, and the further development of the fire strategy will be based upon these principles. The fire strategy will be further developed for submission to the Building Control Body at the appropriate time, and will meet the functional requirements of Part B of Schedule 1 of the Building (Amendment) Regulations 2018[3].

4. References.

- [1] Fire safety in the design, management and use of residential buildings, BS 9991:2015.
- [2] Fire safety in the design, management and use of buildings, BS 9999:2017.
- [3] The Building (Amendment) Regulations, No.1230, Statutory Instrument, 2018.
- [4] Approved Document B – Volume 2, HM Government, 2013.
- [5] Fire classification of construction products and building elements – Part 1, BS EN 13501-1:2007+A1:2009.
- [6] The Construction (Design and Management) Regulations, No.51, Statutory Instrument, 2015.