Health and Safety Executive

Advice to the local planning authority

Advice to the local planning authority (LPA) from the Health and Safety Executive (HSE) as a statutory consultee for developments that include a relevant building.

To LPA	West Berkshire
LPA planning ref no	23/02094/FULMAJ
Our ref	pgo-6211
Site address	The Mall The Kennet Centre Newbury RG14 5EN
Proposal description	Full planning permission for the redevelopment of the Kennet Centre comprising the partial demolition of the existing building on site and the development of new residential dwellings (Use Class C3) and residents ancillary facilities; commercial, business and service floorspace including office (Class E (a, b, c, d, e, f, and g)); access, parking, and cycle parking; landscaping and open space; sustainable energy installations; associated works, and alterations to the retained Vue Cinema and multi storey car park.
Date on fire statement	18/09/2023
Date consultation received	15/11/2024
Date response sent	21/11/2024

1. Substantive response for the local planning authority

Thank you for consulting HSE about this application.

Headline response from HSE
Headline Response from HSE **'content'**

Scope of consultation

1.1 The above planning application relates to a new development, which according to the fire statement (dated 18/09/2023), contains nine new buildings (blocks A-H and block S); three of which are relevant buildings (blocks A, B and S).

1.2 Each block comprises the following;

- Block A – 8-storeys, with an upper-most floor height of 24m, containing ground floor non-residential loading bay and residential amenities, plant at 1st floor level, residential accommodation on 1st to 7th floors, and communal roof areas at levels 2, 6 and 7.
- Block B – 8-storeys, with an upper-most floor height of 24.8m, containing ground floor residential amenities, car parking and non-residential units. Residential accommodation is located on ground to 7th floors and communal roof space is located on 1st and 6th floor levels.
- Block C – 5-storeys, with an upper-most floor height of 14m, containing ground floor non-residential loading bay and residential amenities, residential accommodation located on 1st to 4th floor levels and a communal roof is located on the 2nd floor level.
- Block D – 6-storeys, with an upper-most floor height of 17.2m, containing ground floor residential amenities, plant area and non-residential units. Residential accommodation is located on 1st to 5th floor levels.
- Block E – is stated as 6-storeys (ground to 5th) in fire statement, however, the floor plans available on the planning register identify that block E comprises 5-storeys (ground to 4th). Measurements made by HSE of the block E elevation drawings show an upper-most floor height of approximately 14m. The fire statement identifies ground floor residential amenities and car parking. Residential accommodation is located on 1st to 4th floors with a communal garden located at 1st floor level.
- Block F – 4-storeys, with an upper-most floor height of 10.6m, containing ground floor car parking, residential amenities and non-residential units. Residential accommodation is located on 1st and 3rd floor levels and a communal roof terrace is located at 3rd floor level.
- Block G – 4-storeys, with an upper-most floor height of 10.6m, containing ground floor residential amenities and non-residential space and units. Residential accommodation is located on 1st to 3rd floor levels.
- Block H – 3-storeys, with an upper-most floor height of 7.2m, containing ground floor residential amenities and non-residential units. Residential accommodation is located at 1st and 2nd floor levels, with a retail manager's office (non-residential) located at 1st floor level.
- Block S – 8-storeys, with an upper-most floor height of 25m, containing ground level residential accommodation and amenities, and non-residential space and units. Residential accommodation is also located on 1st to 7th floor levels, with a communal garden located at 1st floor level and two communal roof terraces located on the 6th floor.

1.3 Block C, D, E, F, G and H are not relevant buildings, but they are located in the curtilage of a relevant building and have therefore been considered as part of this assessment.

1.4 The floor plans indicate that there are four existing buildings within the development site; two of which are identified as not forming part of this application (a multi-storey car park and a cinema). The Catherine Wheel (public house) and The Newbury (public house) buildings are not described within the fire statement. However, the Design and Access Statement identifies that they are Grade II listed buildings and that the proposed development is located within the Newbury Conservation Area. For the avoidance of doubt these buildings have been considered as part of HSE's

assessment in relation to fire safety matters, due to their proximity to the proposed development.

1.5 Blocks A, B and S are proposed to be served by two staircases, both of which are firefighting stairs forming part of a firefighting shaft (including a firefighting lift and dry riser main). It is noted that an evacuation lift is also provided.

1.6 The floor plans identify that blocks B and S are joined by way of internal corridors on 1st to 6th floor levels, along with block F at 1st to 3rd floor levels. As the buildings reduce in size on upper floor levels, it is noted that block S is served by two staircases at 7th floor level. The design provides occupants with access to multiple means of escape stairs. This proposal is welcomed.

1.7 Section 6 of the fire statement confirms that the ground floor non-residential space (commercial) has been designed using British Standard 9999 ('BS9999'), and the residential accommodation has been designed using British Standard 9991 ('BS9991'). It is also noted that a fire engineered approach is proposed. HSE has assessed the application accordingly.

1.8 Section 7.1 of the fire statement references the use of the draft BS9991 document (2017), in relation to the design of open plan apartments.

1.9 HSE provides advice to the LPA based on extant fire safety standards and is therefore unable to comment on future draft recommendations, which are likely to be subject to change.

1.10 The cover page of draft BS9991 states: "*Warning: This is a draft and must not be regarded or used as a British Standard. This draft is not current beyond 6 October 2021.*"

Consultation

1.11 Following a review of the information provided in the planning application, HSE is content with the fire safety design as set out in the project description, to the extent it affects land use planning considerations. However, HSE has identified matters that the applicant should try to address in advance of later regulatory stages.

2. Supplementary information

The following information does not contribute to HSE's substantive response and should not be used for the purposes of decision making by the local planning authority.

Means of escape

2.1 Section 6 of the fire statement identifies that a fire engineered solution will be proposed for the extended corridor single direction travel distances incorporating an enhanced mechanical smoke ventilation system within blocks E, F and S.

2.2 It is stated that *"Computational fluid dynamics (CFD) analysis should be undertaken in the next design stage to demonstrate that tenable conditions for means of escape and firefighting can be achieved."*

2.3 It is understood that design analysis has not yet been completed and no supporting evidence has been provided as part of this planning application to confirm that the design analysis supports the proposed design, as presented to the LPA.

2.4 It should be noted that British Standard 7974:2019 advocates the removal of hazards in preference to maintaining hazards with added active systems and states: *"In developing trial designs, the (Qualitative Design Review) QDR team should not just look at adding additional fire protection systems, but should also review the potential for reducing or eliminating some of the hazards by amending the construction or layout of the building. When practical, reducing any hazards inherent in the design of a building is often preferable to adding additional fire protection measures.*"

2.5 Also, PD7974-7 discusses probabilistic risk assessment and states: *"Preference should be given to designs which are inherently safe over designs which rely on active safety features or operational procedures."*

2.6 It will be for the applicant to demonstrate, at later regulatory stages, that the means of escape is capable of being safely and effectively used at all material times, including during firefighting operations, and that the proposed performance-based solutions provide an equivalent level of fire safety to that of code compliance.

2.7 Where active performance based solutions are proposed, a QDR would provide explanatory information to support the planning application and contain an assessment of "what if" events made to identify system failures or foreseeable events that might have a significant influence on the outcome of the study, for example, 'what if' mechanical systems fail to operate? and/or, 'what if' fire doors are propped open? This will be subject to later regulatory consideration; however, this is unlikely to affect land use planning considerations.

2.8 Section 7.2 of the fire statement identifies that roof top terraces to block A (6th floor), block B (4th and 6th floors) and block S (6th floor) are proposed to be served by a single escape route. Due to the single storey exit it will be necessary to limit occupation to 60 people, which will require a strict management policy, and it will be for the applicant to demonstrate compliance at later regulatory stages. It should be noted that any design changes to provide multiple exits from the roof terraces may affect land use planning considerations regarding the appearance of the development.

2.9 Additionally, the external communal terrace on the 6th floor of block A is accessed by a 'Communal Amenity' room. Fire safety standards state that: *"Access to communal roof gardens and similar places should be from a protected stairway enclosure of a protected ventilated lobby/corridor."*

2.10 Design modifications in this instance, to provide access to the roof terrace by way of a protected corridor, may not affect land use planning considerations, and it will be for the applicant to demonstrate compliance at later regulatory stages.

Fire service access and facilities

2.11 Section 7.4 of the fire statement states: *"… BS9991 states that protected stairways should discharge either; directly to a final exit; or, into a protected corridor leading to a final exit which is itself lobbied from any accommodation. In the current proposal it is noted that several stairs discharge into large lobby areas (approximately 35m^2). It*

has been discussed and agreed with the architect, that the lobbies will need to be managed such that these spaces will not contain fire load, e.g. furniture or post boxes, and are considered to be fire sterile areas."

2.12 This is noted. However, it is understood that the staircases, specifically blocks B and S, are also firefighting stairs and, as per fire safety standards, should be accessed either directly from open air or by way of a protected corridor of no more than 18m in length. It is not clear that firefighter access has been considered in this instance.

2.13 Ensuring the large lobbies are fire sterile may address this matter, and it is unlikely that any design changes will affect land use planning considerations in this instance. However, it will be for the applicant to demonstrate compliance at later regulatory stages.

2.14 Section 9.2 of the fire statement states: *"It is proposed that all blocks will be provided with dry riser mains, including those not designed as a firefighting shaft."* This is noted. HSE welcomes this design proposal offering firefighting operational resilience. It will be for the applicant to demonstrate compliance at later regulatory stages.

External wall systems

2.15 The floor plans indicate existing 'Grade II' listed buildings located at the perimeter of the development site; The Catherine Wheel (public house) located between blocks G and H, and The Newbury (public house) located between blocks E and F.

2.16 Section 6 of the fire statement identifies that the external wall systems of blocks F, G and H will be "worse than class A2-s1,d0". Block E is stated as achieving class A2-s1,d0 or better.

2.17 Whilst it is understood that blocks E, F, G and H are not relevant buildings, it is unclear from the information provided that an assessment of the boundaries and potential fire spread from one building to another has been considered. It will be for the applicant to demonstrate compliance at later regulatory stages.

Open plan apartments

2.18 Section 7.1 of the fire statement proposed *"open-plan apartments greater than 8m x 4m having an open kitchen"*.

2.19 Fire safety standards state that; *"the kitchen should be enclosed in open-plan flats having an area exceeding 8m × 4m. Cooking appliances in open-plan flats having an area smaller than 8m × 4m should not be adjacent to the entrance of the flat."* Cooking facilities should be located at the most remote part of the flat so as not to impede the occupant's means of escape.

2.20 Design analysis evidence may be required in support of the applicant's demonstration that the means of escape is capable of being safely and effectively used at all material times.

2.21 Any design changes to the internal layout of the apartments are unlikely to affect land use planning in this instance, and it will be for the applicant to demonstrate compliance at later regulatory stages.

Sprinkler system

2.22 Section 7.3 of the fire statement states that: *"BS9251:2021 states that compartments protected with a BS9251 (residential) sprinkler system should be limited to a maximum of 100m^2. There are multiple areas within the development which are greater than 100m^2. A sprinkler system designed and installed in line with BS EN 12845 should therefore be provided."*

2.23 This is noted. It will be for the applicant to demonstrate compliance at later regulatory stages. It should be considered that any design changes relating to the size and configuration of the water tanks may affect land use planning considerations regarding the layout of the development.

Hydrant provision

2.24 Section 12 of the fire statement states: *"Several hydrants are present on site… An additional hydrant should be located between block A and B in the location identified with a 'H' in a magenta box in Figure 13.1 so that all dry fire main inlets can be within 90m of a fire hydrant."* It is also stated that the reliance on existing hydrants and their current functional status is unknown.

2.25 This is noted, however, without confirmation that there is a suitable water supply and that the existing hydrants are useable, the development might be relying on a disused water main or faulty hydrant. It will be for the applicant to demonstrate compliance at later regulatory stages. Resolving this issue may affect land use planning considerations such as the landscaping around the development, should additional hydrant installations be required.

Electric vehicles

2.26 It is understood that that the existing multi-storey car park does not form part of this planning application, however, HSE has considered its proximity to the proposed residential accommodation blocks; E and S, as part of this assessment.

2.27 It is unclear from the information provided that the spread of smoke and fire from the car park has been considered, specifically as a result of an electric vehicle fire.

2.28 It is advisable to consider the risk to fire safety due to the presence of electric vehicles (EV) as they contain lithium-ion batteries. Lithium-ion batteries may suffer thermal runaway and cell rupture, releasing large quantities of toxic gases, heat, and smoke before catching fire, as well as post-ignition. When they burn, a large amount of water is required to flow on the batteries, however, fire keeps flaring up even after it appears to have been extinguished. Furthermore, there is a danger of electrical shock to firefighters whilst tackling a fire due to the high voltage used in EVs.

2.29 It is noted that the fire statement (section 6) states that the proposed external wall systems for blocks E and S will achieve European classification of A2-s1,d0 or better. However, further information may be required to demonstrate that a vehicle fire on the 3rd storey level (open to air) would not spread to the adjoining residential buildings.

2.30 Additionally, a covered car park is proposed, located at ground floor level of blocks B, E and F, and the same consideration to electric vehicles may be necessary.

2.31 Any design changes may affect land use planning considerations relating to the layout and appearance of the development. It will be for the applicant to demonstrate compliance at later regulatory stages.

Green roofs and terraces

2.32 The floor plans show proposed external private and communal terraces, podiums and green/brown roofs, throughout the development.

2.33 A green roof, wall or external planting may constitute a fire hazard as it requires a regular management and maintenance regime. The external envelope of a building should not provide a medium for undue fire spread.

2.34 Where green roofs/walls or external planting are proposed, sufficient fire resistance to prevent fire spread to any adjoining wall(s) will be required.

2.35 HSE advises that guidance for green roofs can be found in *Fire Performance of Green Roofs and Walls (publishing.service.gov.uk)*, published by the Department for Communities and Local Government. Where regulation 7(2) applies, that regulation prevails over all the provisions in this paragraph.

2.36 It will be for the applicant to demonstrate compliance and that the proposed green roofs are viable in relation to fire safety at later regulatory stages. It should be considered that design changes, should the green roofs not be viable, may affect land use planning considerations relating to the appearance of the development.

Yours sincerely,

S Peacock

Sara Peacock
Fire Safety Information Assessor

Guidance on Planning Gateway One is available on the Planning Portal: Planning and fire safety - Planning Portal.

This response does not provide advice on any of the following:

- **matters that are or will be subject to Building Regulations regardless of whether such matters have been provided as part of the application**
- **matters related to planning applications around major hazard sites, licensed explosive sites and pipelines**
- **applications for hazardous substances consent**
- **London Plan policy compliance**