Fire statement form

Application information	
1. Site address line 1	2-4 Ringer's Road and 5 Ethelbert Road
Site address line 2	
Site address line 3	
Town	Bromley
County	London Borough of Bromley
Site postcode (optional)	
2. Description of proposed development including any change of use (as stated on the application form):	Demolition of existing buildings and construction of a mixed use development comprising residential units, ancillary residents' facilities (including co-working space) and commercial floor space (Use Class E) across two blocks, along with associated hard and soft landscaping, amenity spaces, cycle and refuse storage.
3. Name of person completing the fire statement (as section 15.), relevant qualifications and experience. Guide: no more than 200 words	Ben Cooper MSc (Hons) Fire Safety Engineering BEng (Hons) Fire Engineering 8 years' experience as a fire safety engineer AIFireE with the Institution of Fire Engineers. Relevant experience: *Tolworth Tower, Tolworth* Ben supported the £300m redevelopment of the Tolworth Tower site in Tolworth from office accommodation into residential accommodation. After developing the fire strategy for the Client, Ben continued to support the scheme throughout RIBA Stage 4 and 5, reviewing construction details and coordinating designs with the design team as well as two other fire consultancies acting as third-party reviewers for the Local Authority and the Contractor. *Hollis Croft, Sheffield* Ben produced the fire strategy and provided continued fire strategy support throughout construction for the 972-bed PBSA development on Hollis Croft, Sheffield. The site comprised 3 buildings split into 10 single stair blocks on the site. As part of the fire strategy, Ben provided a performance specification for a temperature control ventilation system to ensure temperatures within the multiple atria within the building would not cause glazing failure, as well as

	working directly with South Yorkshire Fire and Rescue Service to review the water supply to the site and calculate the achievable water pressures for firefighting from the dry rising mains within the blocks.
4. State what, if any, consultation has been undertaken on issues relating to the fire safety of the development; and what account has been taken of this. Guide: no more than 200 words	Orion Fire has undertaken a review of the architect's GA Floor plans and site plan to provide comments on any required alterations that may affect the planning application. Following the initial review by Orion Fire (undertaken in October 2021), the government have released a consultation (23 December 2022) on whether residential buildings with a floor over 30m in height should be provided with two stairs as a Building Regulations requirement. Based on the likelihood of this change coming into effect and affecting this scheme at the point of the Building Regulations application, both blocks have been redesigned to incorporate a second stair. This scheme was also reviewed by the HSE prior to the redesign to incorporate two stairs (HSE Ref: pgo-1019).
5. Site layout plan with block numbering as per building schedule referred to in 6. (consistent with other plans drawings and information submitted in connection with the application)	
Site layout plan is: inserted in the form	


ETHELBERT ROAD
Block B
Block A
BUS STAND
BUS STAND
BUS STAND
BUS STAND
RINGER'S ROAD

The principles, concepts and approach relating to fire safety that have been applied to the development									
6. Building schedule									
Site information				Building information			Resident safety information		
a) block no. as per site layout plan above	b) • block height (m) • number of storeys excluding those below ground level • number of storeys including those below ground level	c) proposed use (one per line)	d) location of use within block by storey	e) standards relating to fire safety/ approach applied	f) balconies	g) external wall systems	h) approach to evacuation	i) automatic suppression	j) accessible housing provided
A	43m when measured from the lowest adjacent external ground to the topmost occupied storey. 15 storeys (Basement, Ground + 13 levels above)	residential flats, maisonettes, studios	Level 00-13	BS9991	class A2-s1, d0 or better	class A2-s1, d0 or better	stay put	yes- residential sprinklers, full	M4(2) & M4(3)

A	43m when measured from the lowest adjacent external ground to the topmost occupied storey. 15 storeys (Basement, Ground + 13 levels above)	office, research and development	Level B-00	Approved document B vol 2	no balconies	class A2-s1, d0 or better	simultaneous	yes- commercial sprinklers, full	N/A non resi
B	36.7m when measured from the lowest adjacent external ground to the topmost occupied storey. 13 storeys (Basement, Ground + 11 levels above)	residential flats, maisonettes, studios	Level 00 - 11	BS9991	class A2-s1, d0 or better	class A2-s1, d0 or better	stay put	yes- residential sprinklers, full	M4(2) & M4(3)
B	36.7m when measured from the lowest adjacent	restaurant, cafe, hot food take-away, drinking	Level 00 - 01	Approved document B vol 2	no balconies	class A2-s1, d0 or better	simultaneous	yes- commercial sprinklers, full	N/A non resi

	external ground to the topmost occupied storey. 13 storeys (Basement, Ground + 11 levels above)	establishment							
B	36.7m when measured from the lowest adjacent external ground to the topmost occupied storey. 13 storeys (Basement, Ground + 11 levels above)	office, research and development	Level B - 00	Approved document B vol 2	no balconies	class A2-s1, d0 or better	simultaneous	yes- commercial sprinklers, full	N/A non resi

7. Specific technical complexities

Explain any specific technical complexities in terms of fire safety (for example green walls) and/or departures from information in building schedule above

Guide: no more than 500 words

The building will be subject to the ban on combustible materials. The external wall materials as currently proposed have been reviewed and comprise:

- SFS internal wall (A2-s1,d0 rated plasterboard, A1 rated metal studs, A1 mineral wool insulation, A2-s1,d0 sheathing board)
- A1 rated Mineral wool slab insulation within the cavity
- Outer skin will be A1 facing rated bricks

Ancillary components of external walls, such as cavity trays, weepholes, ductwork etc. will be subject to review during detailed design; however, will be in accordance with the Regulation 7(2) and 7(3) requirements due to both blocks being classified as Relevant Buildings under the aforementioned Regulations.

The commercial unit is provided with a spiral stair. In pgo-1019 the HSE raised that the spiral stair could cause difficulty for firefighters accessing the first floor with a charged hose, and that this may result in a redesign being required under the Building Regulations. The spiral stair will be designed in accordance with the requirements of BS 5395-2 (Code of practice for the design of helical and spiral stairs) as recommended under ADB to meet the relevant Building Regulations requirements. This is not envisaged to be an issue at the point of the Building Regulations applications. It is further noted that the use of a spiral stair over a traditional U-shape stair is Building Regulations matter and the design of an internal stair is not a land use or planning matter.

8. Issues which might affect the fire safety of the development

Explain how any issues which might affect the fire safety of the development have been addressed.
Guide: no more than 500 words

The building projects beyond the ground floor footprint at first floor level, creating undercroft areas. To overcome this an escape route has been provided on the front and rear of each building to prevent any potential smoke logging from preventing escape from the building. Additionally, each building is provided with two stair cores which discharge on opposite sides of the building in each case.

There are office/coworking areas in both blocks. These spaces have access to the residential core. They do not share circulation routes with apartments and therefore meet the prescriptive guidance of BS 9991, provided that the office/coworking areas are for residents use only. Should the office space be commercially let, it will be altered to be fully independent from the remainder of the building.

There are a number of external walls within 1m of the relevant external fire spread boundary which will need to achieve 120minutes fire-resistance from both sides. This can be achieved via the plasterboard inner-lining and the facing brick outerleaf of the external walls. Any glazed panels over $1m^2$ within 1m of the boundary will be fire-resisting and fixed shut. These areas have been highlighted in the drawing comments provided separately. This will need to be considered by the M&E consultant to ensure that the ventilation strategy within the apartments does not rely on opening windows for purge ventilation.

The stairs are internal and therefore cannot be provided with a door leading direct to external air. A separate protected corridor has been provided to both blocks to give residents access to external air without passing through the receptions or any other rooms containing fire load. As these protected corridors lead into a small undercroft area caused by the building stepping forward at first floor level, the stairs have also been provided with an alternative escape route to the rear of the building. This is to ensure that no single fire location could prevent residents from exiting the building.

The southwestern stair to Block A provides access to the electrical intake room. To compensate for this, the electrical intake room will be separated from the escape passageway via a protected lobby. This space will be maintenance access only and its is not likely that a fire within the electrical intake room could develop to a degree that it would compromise both sets of fire doors forming the protected lobby. Firefighters would be able to direct residents to the other stair in the event of a fire in the electrical intake room to allow them to open doors to the intake room to fight a fire in that space

without affecting the means of escape for any residents. A separating door has been provided to the base of the stair on this level to further mitigate the risk of smoke spread into the stair (i.e., the electrical intake room is provided with 4-door separation to the stair in general use, and 2-door separation when doors are wedged open for firefighting operations).

There are compartments with a floor area in excess of 100m^2. Under BS 9251:2021, these spaces should be provided with a BS EN 12845 commercial sprinkler system. The space allowance for the commercial sprinkler system is currently under review and will be confirmed at RIBA 3 subject to the specific sprinkler design.

9. Local development document policies relating to fire safety

Explain how any policies relating to fire safety in relevant local development documents have been taken into account.
Guide: no more than 500 words
In additional to the relevant Building Regulations guidance, the recommendations of The London Plan 2021 have been followed, and each block shall be provided with an evacuation lift to enable non-ambulant residents to perform a dignified escape from the premises if required.

Emergency road vehicle access and water supplies for firefighting purposes

10. Fire service site plan

Explanation of fire service site plan(s) provided in 14. including what guidance documents have informed the proposed arrangements for fire service access and facilities?
Guide: no more than 200 words
Each block will be provided with a dry riser, serving all floors (including ground) with both inlets being adjacent to the relevant block entrance door and visible from the relevant access road. Block A will be accessible from Ringer's Road and Block B will be accessible from Ethelbert Road. The dry riser outlets will be located within the firefighting stair enclosures with a landing valve on every level as recommended in BS 9991 and BS 9990.

Ancillary accommodation can either be accessed from within the building via internal doors, or where the ancillary accommodation is at the rear of the building, all points of the ancillary accommodation are within 45m of the fire appliance on suitable hoselaying route.

Both blocks exceed 18m in height and will be provided with firefighting stairs and firefighting lifts.

Information on the existing fire hydrants surrounding the site has been requested but no utilities surveys have been conducted at this time. Existing fire hydrants have been identified surrounding the site; however, it is yet to be confirmed if they are operational.

11. Emergency road vehicle access
Specify emergency road vehicle access to the site entrances indicated on the site plan
Guide: no more than 200 words
The fire service will be able to access the site via Ringer's Road for Block A and Ethelbert Road for Block B.
Is the emergency vehicle tracking route within the site to the siting points for appliances clear and unobstructed?
yes

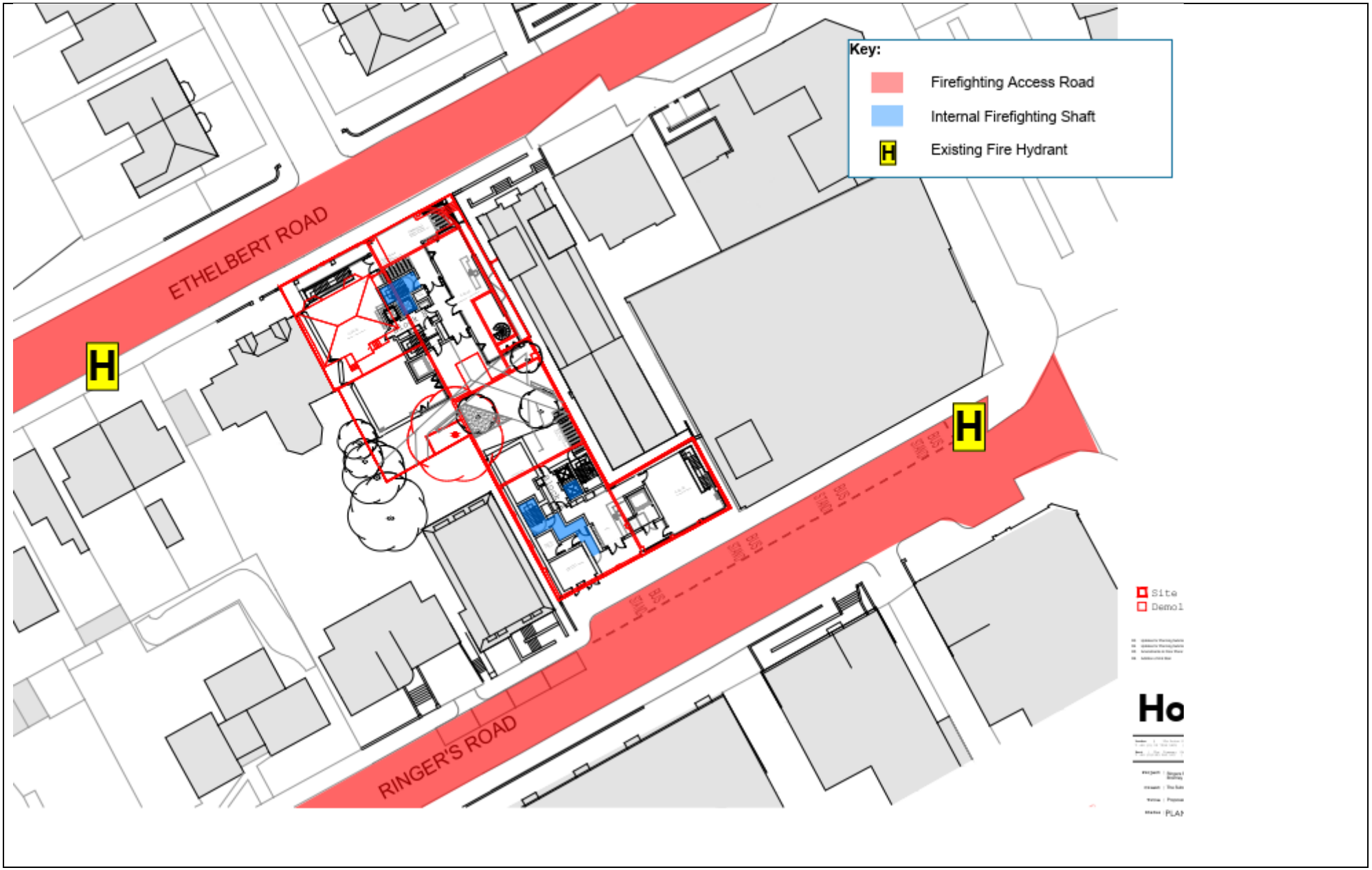
12. Siting of fire appliances
Guide: no more than 200 words
Fire Appliances would be able to park at any point along either Ringer's Road or Ethelbert Road within 18m of the dry riser inlet points to the building and main building entrance doors.

13. Suitability of water supply for the scale of development proposed
Guide: no more than 200 words
See responses for Item 10. Existing hydrants have been identified within 90m of dry riser inlet points and building entry points. It is yet to be confirmed if the existing hydrants are currently functioning.

Nature of water supply:
hydrant- public

Does the proposed development rely on existing hydrants and if so are they currently usable / operable?
don't know

14. Fire service site plan
Fire service site plan is:
inserted in the form


Key:
Firefighting Access Road
Internal Firefighting Shaft
Existing Fire Hydrant
ETHELBERT ROAD
RINGER'S ROAD
H
H
H

Fire statement completed by	
15. Signature	
16. Date	20/03/2023