Fire statement form

Application information	
1. Site address line 1	Maple House, Nos 8-16 (even) & 30-32 High Street and Nos 1-7 Princes Parade
Site address line 2	
Site address line 3	
Town	Potters Bar
County	
Site postcode (optional)	
2. Description of proposed development including any change of use (as stated on the application form):	Partial demolition of existing buildings (with retention of existing two-storey car park and substation) and redevelopment of the site to provide a mixed-use development comprising residential apartments (Class C3) and flexible commercial floorspace (Class E) across 4 Blocks and associated internal roads, parking, drainage, landscaping, amenity space and associated works.
3. Name of person completing the fire statement (as section 15.), relevant qualifications and experience. Guide: no more than 200 words	**Magdalena Wirkus – Fire Engineer** Magdalena Wirkus is a Fire Engineer with 4 years' experience and is an Interim CEng Registrant with Engineering Council. Magdalena has detailed knowledge of Approved Document B (ADB), BS 9991 and BS 9999 with a good understanding and experience of multi-storey residential developments including early stage and construction design stages. She has worked on many similar schemes in the past, incorporating elements such as mechanical smoke control and firefighting facilities into designs, as well as extensive experience working on buildings over 18m in height. **Michel Wizenberg – Partner, Head of Fire Engineering** Michel is a Partner and Head of Fire Engineering at Rider Levett Bucknall. Michel has a BEng (Hons) Mechanical Engineering and done the MSc Modules in Fire Safety Design. He was a board member of both the FIA Fire Engineering Council and the Smoke Control Association. He currently has a membership with the Institution of Fire Engineers (IFE).

	He has 22 years' experience, with vast experience on a variety of high-rise residential developments for major housing clients across the UK. He is the lead author of fire strategies and responsible for all stages of the fire engineering design from the initial client contact through the tendering phase, across construction and the ongoing management and maintenance of fire safety systems and passive fire protection. Michel has a wealth of experience in working across various sections (such as residential, commercial, etc.) as well as working in the design of active and passive fire protection systems, both in design and remedial schemes, specifically for buildings over 18m in height.
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	Internal consultation has been completed between the design team. External consultation will be carried out as the design progresses.
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	


SUB STATION
CANADA LIFE PLACE
BLOCK A
BLOCK B
BLOCK E
CAR PARK
PLANT
PLANT
PLANT
BLOCK D
MUTTON LANE
HIGH STREET

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
Block A – Residential floors	• 44.33m • 15 • 15	residential flats, maisonettes, studios	Ground, 1st to 14th	BS9991	class A2-s1, d0 or better	class A2-s1, d0 or better	stay put	yes- residential sprinklers, full	M4(2)
Block A – Ancillary	• 0m • 1 • 1	other residential accommodation	Ground Floor	BS9991	no balconies	class A2-s1, d0 or better	simultaneous	yes- residential sprinklers, full	none
Block A – Class E	• 0m • 1 • 1	Flexible use	Ground Floor	BS9999	no balconies	class A2-s1, d0 or better	simultaneous	yes- commercial sprinklers, full	N/A non resi
Block B – Residential floors	• 17.1m • 6 • 6	residential flats, maisonettes, studios	Ground, 1st to 5th	BS9991	class A2-s1, d0 or better	class A2-s1, d0 or better	stay put	yes- residential sprinklers, full	M4(2)
Block B – Ancillary	• 0m • 1	other residential	Ground Floor	BS9991	no balconies	class A2-s1, d0 or better	simultaneous	yes- residential	none

	• 1	accommodation						sprinklers, full	
Block B – Class E	• 0m • 1 • 1	Flexible use	Ground Floor	BS9999	no balconies	class A2-s1, d0 or better	simultaneous	yes- commercial sprinklers, full	N/A non resi
Block D - Residential floors	• 13.95m • 5 • 5	residential flats, maisonettes, studios	Ground, 1st to 4th	BS9991	class A2-s1, d0 or better	class A2-s1, d0 or better	stay put	yes- residential sprinklers, full	M4(2)
Block D - Ancillary	• 0m • 1 • 1	other residential accommodation	Ground Floor	BS9991	no balconies	class A2-s1, d0 or better	simultaneous	yes- residential sprinklers, full	none
Block D – Class E	• 0m • 1 • 1	Flexible use	Ground Floor	BS9999	no balconies	class A2-s1, d0 or better	simultaneous	yes- commercial sprinklers, full	N/A non resi
Block E – Residential floors	• 9.45m • 4 • 4	residential flats, maisonettes, studios	Ground, 1st to 3rd	BS9991	worse than class A2-s1, d0	worse than class A2-s1, d0	stay put	none	M4(2)
Block E – Ancillary	• 0m • 1 • 1	other residential accommodation	Ground Floor	BS9991	no balconies	worse than class A2-s1, d0	simultaneous	none	none

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

Travel Distances in Common Corridors:

For buildings with a storey less than 30m, either natural or mechanical ventilation system is acceptable where the single direction travel distances are within 15m. For buildings over 30m in height or where the single direction travel distance is exceeded mechanical ventilation system is required.

Block A will have floors over 30m above ground level, therefore, all common corridors that serve apartments will be provided with a mechanical smoke ventilation system (MSVS) via a minimum of 0.6m^2 smoke shaft located in the dead end of the corridor. Replacement air to the stairways will be provided via 0.6m2 natural air supply shafts within the lift lobby and via a 1.0m^2 AOV located at the head of each stair.

The proposed smoke control strategy will be validated using Computational Fluid Dynamics (CFD), in accordance with the guidance of Smoke Control Association (SCA), Guidance on Smoke Control to Common Escape Routes in Apartment Buildings (July 2020).

Blocks B and D will be less than 18m in height with single direction travel distance in the common corridors limited to 15m. The corridors will be vented via 1.5m^2 natural smoke shafts. All stairways will be provided with automatic opening vents at the head.

Block E will be less than 11m in height and will not be sprinklered with single direction travel distances in the common corridors limited to 7.5m. The protected lobbies will be vented via 1.5m^2 natural smoke shafts.

Escape Past Kitchen Hob in Open-Plan Apartments:

Blocks A, B and D will have open-plan apartments. In line with the recommendations of BS 9991:2024, occupants escaping from bedrooms should not have to make their escape past a kitchen due to the sleeping risk. Therefore, cooking facilities shall be located remote from the main entrance door and should not impede the escape route anywhere in the flat. This recommendation will be met for the majority of apartments, where kitchen hobs will be located at least 1.8m away from the escape routes with a minimum width of 900mm for the escape routes. The escape route from adjoining habitable rooms and balconies past the hob shall be unobstructed.

- **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

Means of Escape

- Apartments will adopt a stay put evacuation regime whereby only the particular apartment of a fire origin will evacuate immediately upon the fire detection, unless otherwise instructed by the Fire Brigade.
- The residential ancillary accommodation and commercial units will operate independently of the residential apartments. These areas will adopt simultaneous evacuation regime. Evacuation of these areas will not cause evacuation of other areas.
- Block A will be over 18m and will be provided with an evacuation alert system that could be used by the Fire Brigade to undertake the partial or whole building evacuation if considered necessary.
- Block A will be provided with two stairs (one firefighting stair and one escape stair). All stairs will serve every level within each building. All stairs will discharge to outside via protected exit passageways at ground floor.
- Block B will be provided with two escape stairs serving levels 01 to 04. At level 05, the floorplan steps inward, and access will be available to a single escape stair only at this level. Blocks D and E will be provided with a single escape stair serving all levels. All escape stairways will discharge to outside at ground floor.

- Commercial units located in Blocks A, B and D will be provided with separate exits, independent of the residential escape routes.
- An LD1 (open plan apartments) and LD2 (protected entrance hallway apartments) with Grade D1 fire detection and alarm system will be provided within the rented apartments and LD1 with Grade D2 will be provided in the owner occupied apartments. The system will conform to BS 5839 Part 6. Common corridors will be fitted with an L5 fire detection and alarm system; residential ancillary spaces will be fitted with an L3 system category; the commercial units will be provided with a minimum of a manual type fire detection and alarm system.
- The residential corridors in Block A will be provided with a mechanical smoke ventilation system (MSVS) via a minimum of 0.6m^2 smoke shaft located in the dead end of the corridor. Replacement air to the stairways will be provided via 0.6m^2 natural air supply shafts within the lift lobby and via a 1.0m^2 AOV located at the head of each stair. The residential corridors / lobbies in Blocks B, D and E will be provided with natural smoke shafts of 1.5m^2 free area. All stairways will be provided with automatic opening vents at the head.
- In Block A, any ancillary accommodation accessed from the stair escape route will be approached via a protected lobby with 0.4m^2 permanent ventilation or a mechanical system equivalent. In Block B, the amenity lobby connecting to the escape stair will be separated by a 60 minutes fire curtain in conjunction with an FD60S fire door, in lieu of a protected ventilated lobby. No connections will be provided between the final exit route and ancillary spaces. In Block D, the escape stair will not have any connections to ancillary areas. In Block E, the final exit route from the stairs will also connect to the amenity lobby and residential apartments. These connections will be provided via protected, ventilated lobbies, served by 1.5m^2 natural smoke shafts extended from the upper levels.
- Each building will be provided with an evacuation lift associated with an escape stair. The evacuation lifts will be located within the protected stair enclosures / protected lobbies and provided with refuge spaces achieving 1500mm by 1500mm dimensions and equipped with emergency voice communication system (EVC) conforming to BS 5839 Part 9.

Structure & Compartmentation

- The structural elements for Block A will achieve a minimum of 120 minutes fire resistance (R); the structural elements for Blocks B, D and E will achieve a minimum of 60 minutes (R) fire resistance.
- All floors will be constructed as compartment floors, achieving fire resistance equal to that required for elements of structure. All risers passing through the floors will be enclosed with fire resisting construction at least equal to that required for elements of structure.
- Common corridors will be protected with 60 minutes (REI) fire resisting construction and fitted with FD30S fire doors.
- All apartments will be enclosed with 60 minutes (REI) fire resisting construction and provided with FD30S fire doors.
- The firefighting shaft in Block A, including the firefighting lift and firefighting stair will be enclosed with construction achieving 120 minutes of fire resistance (REI). The firefighting lift and stair will be provided with FD60 fire doors and FD60S doors respectively.
- The escape stairs will be enclosed with fire resisting construction equal to that for elements of structure. Doors within the stairways will have performance equal to the half the period required for the stair enclosure.
- Evacuation lobbies will achieve at least 30 minutes of fire resistance (REI) and be provided with FD30S fire doors. Any risers located within the protected lobbies will be smoke sealed.

- Smoke shafts will be enclosed with fire resisting construction and fitted with fire doors equal to the elements of structure. The fire doors will be smoke sealed.
- Commercial units will be separated from the residential accommodation with fire resisting construction equal to that required for elements of structure.
- High risk rooms and plant rooms will be enclosed with construction achieving a minimum of 30 minutes (REI) fire resistance and provided with FD30 fire doors. Rooms containing life safety equipment will be enclosed with 120 minutes (REI) fire resisting construction and fitted with FD120 fire doors.
- In Blocks A, B and D, residential sprinklers will be provided to all residential apartments and to cover ancillary areas where these accommodations do not exceed the areas within Table 4 of BS 9251:2021. The commercial units will be provided with commercial sprinkler system in accordance with BS EN 12845. Block E will not be provided with a sprinkler system as it will be less than 11m in height.

External Fire Spread

- For Blocks A, B and D all of the materials which become part of an external walls (other than those exempted by the regulation) will achieve European Classification A2-s1,d0 or Class A1, classified in accordance with BS EN 13501-1: 2018. Block E is less than 11m in height and is positioned more than 1m from the relevant boundary, there are no restrictions on external wall surface spread of flame.
- For Blocks A, B and E, no fire protection will be required to the external façades based on the buildings' boundary distances. Block D will require portions of the north and west elevations protected due to their proximity to the relevant boundaries.
- For Blocks A, B and E, roof coverings will achieve European Class $C_{ROOF}(t4)$ and for Block D, roof coverings will achieve $B_{ROOF}(t4)$.
- Where green roofs are provided, 500mm wide fire breaks will be required in accordance with GRO Fire Risk Guidance and DCLG Fire Performance of Green Roofs and Walls.

Firefighting Access and Facilities

- Block A will exceed 18m in height; therefore, it will be provided with a firefighting shaft comprising a firefighting stair, firefighting lift, and firefighting main (dry riser). Blocks B, D and E will be provided with dry risers located within the escape stairways.
- Fire and Rescue Service vehicle access will be provided within 18m of, and in sight of, the fire main inlet points (located on the face of the building).
- Vehicle access to the commercial units will be provided to 15% of their perimeter.
- All parts of the residential floor plates will be within 60m (or 45m for buildings without firefighting shafts), measured along a route suitable for laying a hose from a dry riser outlet within the firefighting stair (or escape stair).
- There are existing hydrants on site; however, to achieve the recommended hydrant coverage, three private hydrants are proposed within 90m of the fire main inlet / building entrance points, in line with BS 9991:2024.
- Each life safety system will be provided with a secondary power supply, which will activate in the event of failure of the main supply.

8. 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

The development was designed following the guidance of BS 9991:2024 and BS 9999.

Emergency road vehicle access and water supplies for firefighting purposes

9. 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

- Fire service access will be provided within 18m and in sight of the fire main inlet points.
- For the commercial units, vehicle access will be provided to 15% of their perimeter (as each unit will be less than 2000m²), in line with BS 9991.
- All parts of the residential floor plates will be within 60m (or 45m for buildings without firefighting shafts), measured along a route suitable for laying a hose from a dry riser outlet within the firefighting stair or escape stair.
- There are existing hydrants on site; however, to achieve the recommended hydrant coverage, three private hydrants are proposed within 90m of the fire main inlet / building entrance points, in line with BS 9991:2024. This is shown on the site plan referenced in Section 14.

10. Emergency road vehicle access

Specify emergency road vehicle access to the site entrances indicated on the site plan

Guide: no more than 200 words

As noted in Section 9, fire tender access routes are provided within 18m of the dry riser inlets for buildings fitted with fire mains, in line with the recommendations of BS 9991:2024. Fire tender access routes are shown on the site plan referenced in Section 14.

Is the emergency vehicle tracking route within the site to the siting points for appliances clear and unobstructed?

yes

11. Siting of fire appliances

Guide: no more than 200 words

The vehicle access route is being designed to meet the recommendations for a pump appliance in accordance with BS 9991:2024.

12. Suitability of water supply for the scale of development proposed

Guide: no more than 200 words

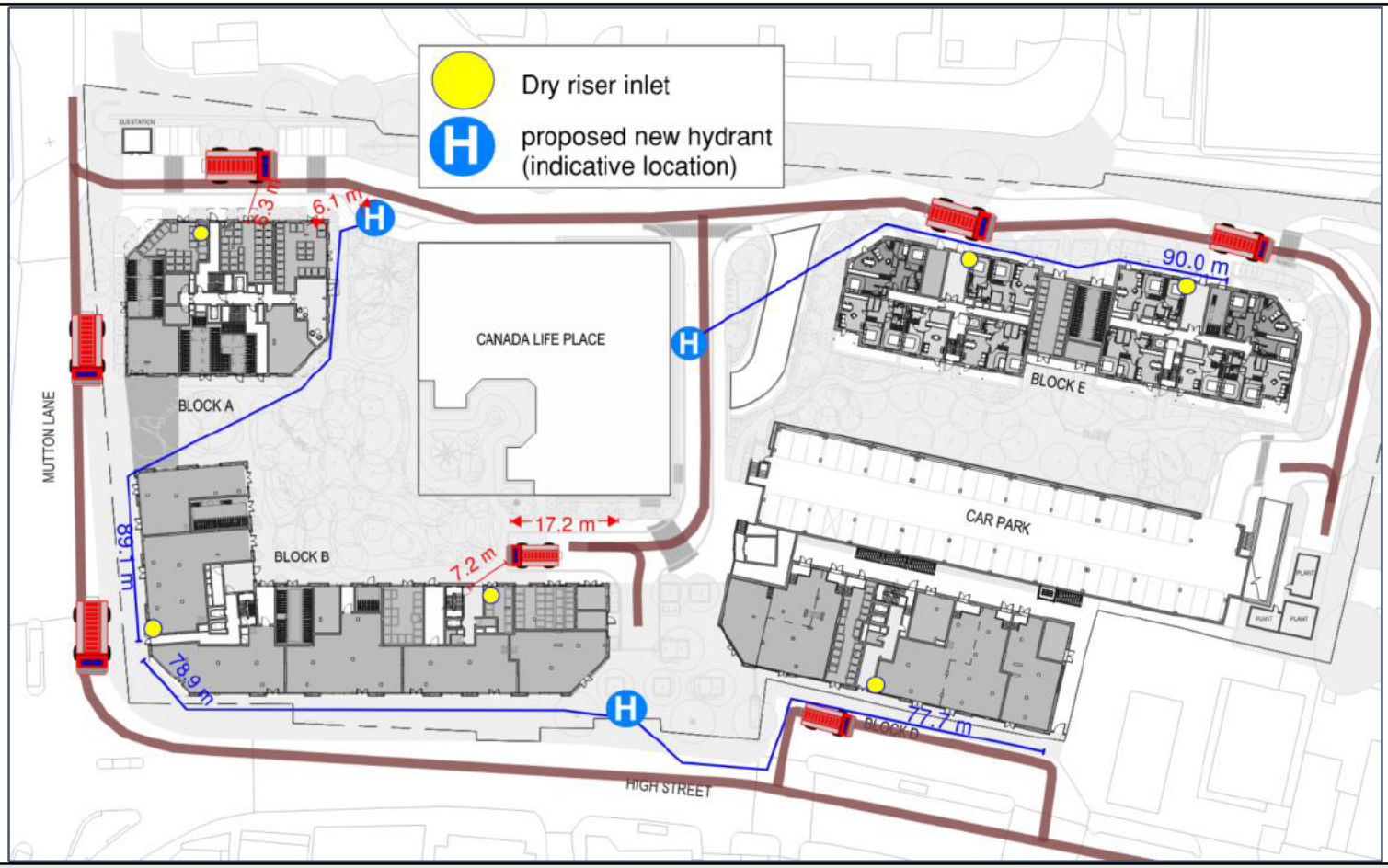
- There are existing hydrants on site. However, to provide the recommended hydrant coverage, three private hydrants are proposed to be provided within 90m for the fire main inlets / building entrance points, in line with BS 9991:2024. This is shown on the site plan referenced in Section 14.

Nature of water supply:
hydrant- private

Does the proposed development rely on existing hydrants and if so are they currently usable / operable?
no

13. Fire service site plan

Fire service site plan is:
inserted in the form



Fire statement completed by	
14. Signature	[redacted]
15. Date	22/06/2026