




**BUREAU
VERITAS**

Fire Statement
for
EP - 10 Cambridge Park, Twickenham

Reference: S22046197

Issue No: 01

| Application information | |
|--|---|
| 1. Site address line 1 Site address line 2 Site address line 3 Town County Site postcode (optional) | EP - 10 Cambridge Park Twickenham TW1 2PF |
| 2. Description of proposed development including any change of use (as stated on the application form): | This residential dwelling comprises of four storeys, including ground floor. The top storey height is approximately 10m and the building is undergoing external utility upgrades without a change of use. The proposed work involves the installation of a new pipeline extending horizontally along the west side elevation, crossing to the south elevation and branching off at two distinct levels. |
| 3. Name of person completing the fire statement (as section 15.), relevant qualifications and experience. | Lee Bui – Associate Fire Engineer A mechanical engineer with over 13 years of experience in fire safety engineering and building regulations advice within the UK and internationally. |
| 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. | Consultation has not been undertaken and is not required. No account of this has been considered in this statement as the scope of works will have negligible impact on fire safety for the scheme. |
| 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) | |
|  | |
| 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 basements • number of storeys including basements | c) proposed use (one per line) | d) location of use within block by floor level | 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 |
| 10 Cambridge Park | 10m The four-storey building consisting of ground and three upper floors. There is no Basement present | Residential flats | All floors are Residential flats | Approved document B vol 1 | no balconies | Class B-s3, d2 or worse | stay put | none | None |

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

No specific technical complexities and/or departures from information in the building schedule.

8. Explain how any **issues which might affect the fire safety of the development** have been addressed.

Clause 3.80 of Approved Document B Volume 1 requires that gas service and installation pipes should not be within a protected stairway, unless installed in accordance with the Pipelines Safety Regulations 1996 and the Gas Safety (Installation and Use) Regulations 1998.

The installation appears to comply with Clause 3.80 of Approved Document B Volume 1, as the new riser and gas pipes are externally mounted, avoiding any encroachment into protected stairways. Entry points for the riser into individual flats do not intersect with common stairwells, and internal adjustments are confined to kitchen areas, suggesting adherence to relevant safety regulations. However, on the south elevation, there is a spiral external staircase adjacent to the new gas pipeline. If this external staircase is used for evacuation or as part of the means of escape, the installation would not be compliant with Clause 3.80 of ADB.

Similarly, Clause 7.26 states that a protected shaft containing a protected stairway and/or a lift should not also contain either of the following.

- a. A pipe that conveys oil, other than in the mechanism of a hydraulic lift.
- b. A ventilating duct. Two exceptions are as follows.
 - i. A duct provided for pressurising the protected stairway to keep it smoke free.
 - ii. A duct provided only to ventilate the protected stairway.

A pipe that is completely separated from a protected shaft by fire resisting construction is not considered to be contained within that shaft.

No pipes are proposed within protected shafts therefore this requirement requires no consideration.

And finally, Clause 7.27 and 7.28 states that in a protected shaft, any pipe carrying natural gas or LPG should be both of the following.

- a. Of screwed steel or all-welded steel construction.
- b. Installed in accordance with both of the following.
 - i. The Pipelines Safety Regulations 1996.
 - ii. The Gas Safety (Installation and Use) Regulations 1998.

The protected shaft conveying the piped flammable gas should be ventilated direct to the outside air, by ventilation openings at high and low level in the shaft. Any extension of the storey floor into the protected shaft should not compromise the free movement of air throughout the entire length of the shaft. Guidance on shafts conveying piped flammable gas, including the size of ventilation openings, is given in BS 8313.

As per Clause 7.26 no pipes are proposed within protected shafts. These clauses will not affect the fire safety development of the building.

9. Explain how any **policies relating to fire safety** in relevant **local development documents** have been taken into account.

The London Plan 2021 was taken into account as follows:

- The development proposals achieve the highest standards of fire safety for all building users through identification of a suitably positioned unobstructed outside space for fire appliances to be positioned on and appropriate for use as an evacuation assembly point.
- The design incorporates appropriate features which reduce the risk to life and the risk of serious injury in the event of a fire, including appropriate fire alarm systems and passive and active fire safety measures.
- It will be constructed in an appropriate way to minimise the risk of fire spread.
- There are suitable and convenient means of escape, and associated evacuation strategy for all building users.
- A robust strategy for evacuation is provided which can be periodically updated and published, and which all building users can have confidence in.
- There is suitable access and equipment for firefighting which is appropriate for the size and use of the development.
- The development proposals are documented in this Fire Statement, which is an independent fire strategy, produced by a third party and suitably qualified assessor. This fire statement details how the development proposal will function in terms of the building's construction: methods, products and materials used, including manufacturers' details. See below.

Construction Methods and Lists of materials

The wall build-up is expected to remain Class A2-s1, d0 or worse as there is no limitations for a building of this risk.

Information about products, methods and manufacturer's details have not been considered **as there are no material alterations to the structure of the building**.

Means of Escape and Evacuation Strategy

A 'stay put' evacuation procedure shall be in place in the residential accommodation whereby only the occupants in the flat of fire origin shall evacuate. Occupants in other flats will remain in place unless asked to evacuate by the attending Fire Service or evacuate of their own free will. This approach reflects the high degree of compartmentation present in these types of buildings and minimises the impact of false alarms.

Passive & Active Fire Safety Measures

As there are no material alterations to the structure of the building no consideration of the passive and active fire safety systems has been allowed for.

The following are typical provisions for this building type:

- Fire detection and alarm system designed to BS5839-6:2019
- Emergency escape lighting designed in accordance with BS 5266-1
- No sprinklers as initial notice was served before the requirements came into force

Assembly Points

As stated, the evacuation strategy for this building is defend in place. However, in case all building occupants must be evacuated, there is sufficient space on 10 Cambridge Park drive which is considered a place of ultimate safety.

Emergency road vehicle access and water supplies for firefighting purposes

10. **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?

As the common stair will not serve any floor levels exceeding 18m in height (measured from access level), the stair cores are not required to be firefighting shafts.

Dry rising mains will not be provided.

Fire service access is required for a pumping appliance to within 45m of all points within each dwelling along a route suitable for laying hose. Fire appliance access will be available via 10 Cambridge Park, as indicated on the site plan. The maximum hose distance from the fire appliance parking position to the furthest point in the flats is expected to be within the 45m due to the existing condition remaining unchanged with this scope of works.

11. **Emergency road vehicle access** - can emergency road vehicles access the site entrances indicated on the site plan?

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

Yes

Firefighting vehicle access will be available to the south elevation via 10 Cambridge Park, on which each entrance door is located. This will be unchanged from the existing firefighting access and is expected to conform to the requirements in the table below.

| Appliance | Min. Width of Road between Kerbs | Min. Gateway Width | Min. Turning Circle | | Min. Clearance Height | Min. Carrying Capacity |
|-----------|----------------------------------|--------------------|---------------------|--------------|-----------------------|------------------------|
| | | | Kerb to Kerb | Wall to Wall | | |
| Pump | 3.7m | 3.1m | 16.8m | 19.2m | 3.7m | 12.5 tonnes |

Note:

1) *Dead end fire service access roads may be up to 20 meters long without being provided with a turning bay (A fire service vehicle should not have to reverse further than 20m).*

2) *As per the existing condition, firefighting vehicle access will not be available to the rear of the building.*

As the building will not be provided with fire mains, fire service access is required for a pumping appliance to within 45m of all points within each dwelling along a route suitable for laying hose. Fire appliance access will be available as indicated in the drawing below.

12. **Siting of fire appliances**

The fire appliance can park where convenient along 10 Cambridge Park which will satisfy the vehicle access road specifications along its entire length. The main entrance directly into the single stair is located on the south elevation of the building.

13. Suitability of **water supply** for the scale of development proposed

Hydrants are required within 90 metres of an entrance to the building. **This has not been assessed as the proposed scope of works makes no alteration to the building location.**

If the existing local fire hydrants do not meet this requirement new hydrants may be required. Hydrants should be capable of supplying at least 1500 l/min in accordance with the recommendations of BS 9990.

Each hydrant should be clearly indicated by a plate affixed nearby in a conspicuous position in accordance with BS 3251.

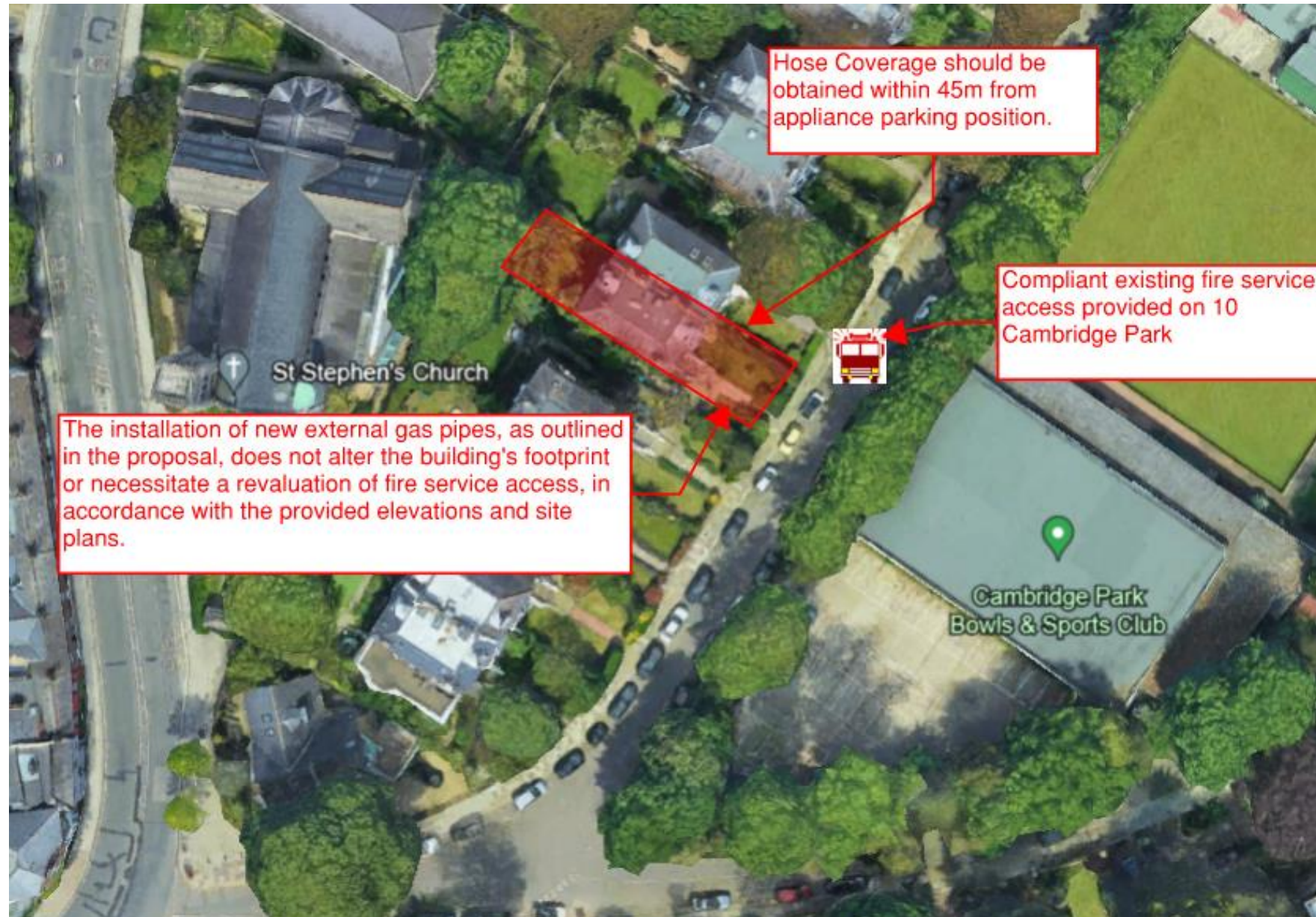
Where it is not possible to provide a piped water supply or there is insufficient pressure, an alternative source should be provided in accordance with the following recommendations.

- A charged static water tank of at least 45,000 litre capacity.
- A spring, river, or canal capable of providing 45,000 litres of water at all times of the year, to which access, space and hard standing are available for a pumping appliance.
- Any other means of providing a water supply for firefighting operations considered appropriate by the fire and rescue authority.

Fire hydrant survey has not been undertaken yet, however if no public hydrants will be available, then an application for a new private hydrant will be put forward by the design team.

14. Fire service site plan

Fire service site plan is:
inserted in the form



Fire statement completed by

15. Signature



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| 16. Date | 04/07/2024 |
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