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Sam Fitzpatrick
Planning Officer
Planning Solutions Team
London Borough of Camden
Sent by email to [redacted]

The London Fire Commissioner is the fire and rescue authority for London

Date 22 April 2024
Our Ref 02/251709
Your Ref 2023/5103/P

Dear Madam,

RECORD OF CONSULTATION/ADVICE GIVEN

TOWN AND COUNTRY PLANNING ACT 1990

SCOPE OF WORKS: Change of use of existing deep level tunnels (Sui Generis) to visitor and cultural attraction (F1), including bar (Sui Generis); demolition and reconstruction of existing building at 38-39 Furnival Street; redevelopment of 40-41 Furnival Street, for the principle visitor attraction pedestrian entrance at ground floor, with retail at first and second floor levels and ancillary offices at third and fourth levels and excavation of additional basement levels; creation of new, pedestrian entrance at 31-33 High Holborn, to provide secondary visitor attraction entrance (including principle bar entrance); provision of ancillary cycle parking, substation, servicing and plant, and other associated works.

PREMISES ADDRESS: Chancery Station House 31-33 High Holborn London Camden WC1V 6AX

DOCUMENTS REVIEWED:

- 'The London Tunnels – 23. Fire Statement',
  (WSP, TLT-WSP-XX-XX-ST-FI-00001, First Issue, 30/11/2023)
- Email correspondence between Anastasia Tampouridou (Planning Officer, City of London) and London Fire Brigade officers, dated between 23/01/2024 and 18/04/2024

PLANS REVIEWED:

- 'The London Tunnels – 7. Application Drawings (Tunnels General Arrangement)',
  (Wilkinson Eyre, drawing pack, 30/11/2023, various drawing nos.)

The London Fire Commissioner (the Commissioner) is the fire and rescue authority for London. The Commissioner is responsible for enforcing the Regulatory Reform (Fire Safety) Order 2005 (The Order) in London.

London Fire Brigade (LFB) has been consulted with regard to the above-mentioned premises and makes the following comments/observations:

LFB have also submitted a planning representation, amended as applicable, to the City of London (City of London planning application ref. 23/01322/FULMAJ), due to the proposals spanning two local authority areas.

General fire safety design approach and consultation with key stakeholders

1. We note that the proposed fire safety design involves a range of elements that cannot meet the recommendations of guidance supporting Part B of the Building Regulations, such as Approved Document B, Volume 2 and BS 9999:2017. Therefore, we understand that a performance-based design approach will be adopted for the overall fire safety design and elements where it is not possible to independently apply the recommendations of relevant established guidance.

   We understand that it is proposed that the methodology outlined in BS 7974:2019 will be applied and we support this approach. As part of this methodology, a Qualitative Design Review (QDR) process should be undertaken and LFB would expect to be involved in this process as a key stakeholder, both in our capacity as an emergency response agency for fires and other emergencies but also as the future enforcing authority for The Order. However, we should emphasise that it cannot be assumed that following any particular methodology, in and of itself, automatically leads to acceptable solutions or outcomes. The detail of any risks identified, and decisions made, may need revision throughout the design and construction phases as previously unknown circumstances arise, and may not be easily or suitably resolved.

   One of the main important factors in any such fire engineering framework or QDR is the 'What if' study (BS 7974:2019 clause 5.5.3 refers) which includes assessment of system failures or foreseeable events which may negatively impact on the fire safety of the proposal.

2. We note that the aforementioned fire statement/planning fire safety strategy document, and the appended 'Fire Engineering - Basis of Design' makes reference to BS 9992 as one of the fire safety codes of practice relevant to the design. Whilst we note that it has been acknowledged that the proposals do not conform to this code of practice, we advise that caution is taken if applying the recommendations of BS 9992 to tunnels that do not form part of railway infrastructure. Whilst some of the recommendations of the code of practice may be applicable, the assumptions made for sub-surface railway infrastructure in particular are quite different than those for other types of purpose group/occupancy. For example, is it permissible when seeking to conform to the recommendations in BS 9992 to omit smoke ventilation from parts of sub-surface stations, whereas Approved Document B and BS 9999 recommend that basements over 3m in depth and/or 200m^2 should be provided with smoke ventilation. The omission of smoke ventilation from some parts of sub-surface railway infrastructure is premised upon control of the fire reaction properties of materials considerably more onerous than expected by Building Regulations guidance for other types of occupancy and also a significantly different occupancy profile; it should not be assumed that these characteristics, and thus the recommendations given in BS 9992, are applicable to assembly and recreation purpose groups or places of entertainment.

   It is our expectation—subject to the outcome of the performance-based design process and associated stakeholder engagement—that suitable smoke ventilation/control systems will be provided, in conjunction with suitable and compatible automatic fire suppression systems. Smoke ventilation/control systems and automatic fire suppression systems, when suitably designed, installed, commissioned and maintained, provide benefits in terms of occupant and firefighter safety as well as assisting with achieving objectives related to protection of property and the environment and maintenance of business continuity.

Critical fire safety design issues that LFB would expect to be addressed as the design is developed

LFB wish to highlight a number of fire safety design issues that we would expect to be addressed as the fire safety design process progresses. This is not intended to be exhaustive. We note that LFB representatives have attended two meetings with representatives of City of London and the planning

applicant on 11/09/2023 and 19/04/2024 and discussions at these meetings, although not recorded in meeting notes/minutes, as well as the aforementioned correspondence with City of London, have informed the content of our representation.

Extended travel distances for occupant means of escape and firefighter access/intervention

3. We note that the nature of the existing tunnel infrastructure is such that travel distances for occupant means of escape in case of fires and other emergencies but also travel and hose laying distances for firefighter access/intervention will be significantly extended beyond the distances recommended within guidance.

   We understand that extended means of escape travel distances are intended to be addressed by undertaking evacuation analysis using fire and evacuation modelling (ASET/RSET analysis). As we understand that part of the proposals includes a bar/licensed premises, the means of escape design should consider the effects of intoxication upon occupants.

   We understand that extended hose laying distances are proposed to be addressed by providing an enhanced dry fire main system, similar to that provided for sub-surface railway tunnel infrastructure and we expect to be consulted further as the design progresses, including as part of any QDR process, which may take place prior to a statutory Building Regulations consultation with LFB. Of particular importance is the principle that firefighters should not be expected to connect to any fire main landing valve outlet in the compartment of fire origin.

   In addition to means of escape and hose laying distances, we would also expect the design to consider the added physiological demands that are placed upon firefighters when carrying heavy equipment whilst wearing personal and respiratory protective equipment over distances extended beyond the recommendations of guidance.

   It is not only horizontal firefighting intervention that needs further consideration – it is also required for vertical firefighting intervention. Our current understanding is that the lift shaft(s) only serve ground (the entrance to the premises) and basement (the premises themselves). This arrangement does not permit us to implement our standard basement firefighting procedure – a safe system of work which allows for approach from above the fire. Intermediate firefighting and bridgehead lobbies may be required in the vertical shaft(s), and it is unclear if this is possible.

Inclusive design and means of escape for persons with relevant protected characteristics

4. It is our expectation that the fire safety design should provide equitable means of escape for all building users, including persons with relevant protected characteristics. The design should consider persons of restricted mobility who may be unable to use stairs.

   We understand that evacuation lifts and disabled refuge areas are proposed. It is our expectation that there should be sufficient evacuation and firefighters lifts such that, in the event of either type of lift becoming unavailable (for example, due to a fault or planned maintenance), one of each type of lift will remain available for their respective uses. It should be assumed that firefighters will take control of the firefighters lift(s) upon arrival at an incident and that this may occur prior to the conclusion of the evacuation phase for premises of this nature.

   Furthermore, given the depth of the premises from access level and the fact that occupants other than persons of restricted mobility may experience difficulty in evacuating upwards over a height in excess of 30m, we would recommend that consideration be given to providing additional evacuation lift capacity and this should be taken into account when undertaking the evacuation lift capacity assessment expected under London Plan 2021 Policy D5(B5).

Radio communications coverage for firefighters and other emergency responders

5. In order to be able to commit firefighters in response to incidents in all types of environments, our safe systems of work require that radio communications are possible between command and control points (which may be at a distance from the access point at fire and rescue service access level) and firefighters working in the risk area. This is especially critical for deep sub-surface infrastructure of this nature.

   We understand that means for incident ground communications will be addressed in future design stages and we would expect to be directly consulted in relation to this. LFB will be able to advise on the specification of the proposed Distributed Antennae System. We would expect this to allow use of both LFB incident ground analogue/digital radios, used by firefighters committed to the incident and whilst wearing self-contained breathing apparatus, but also radio equipment used by other emergency responders such as the London Ambulance Service, Metropolitan Police Service and City of London Police.

Electric Powered Personal Vehicles

6. LFB have experienced a significant increase in the number of fires resulting from the failure of lithium-ion powered electric vehicles, especially Electric Powered Personal Vehicles (EPPVs) such as e-bikes, e-scooters and other e-mobility devices. Fire incidents involving EPPVs pose a unique hazard, both to escaping occupants, who may be exposed to a rapidly growing fire and release of toxic and combustible gases potentially creating an untenable and/or explosive atmosphere, as well as to firefighters, who may experience difficulty in extinguishing a fire involving lithium-ion batteries subject to thermal runaway. These unique hazards are compounded when occurring in enclosed spaces such as tunnels.

   We understand that some EPPVs may be present and we would expect these, as well as any battery energy storage systems proposed, to be explicitly addressed as part of the fire safety design process.

Construction phase fire safety

7. All of the above considerations, which we reiterate are not intended to be exhaustive, should be independently considered for the construction phase. For example, it is critical that suitable means of escape is provided for construction operatives and that radio communications and water supplies are provided for firefighters.

   The relevant aspects may be addressed as part of a separate construction phase fire strategy and the responsible person(s) will also need to produce and review a suitable and sufficient fire risk assessment to demonstrate compliance with The Order during construction. This is in addition to the statutory obligations of the relevant duty holders under The Construction (Design and Management) Regulations 2015.

In relation to all of the above items, whilst we are not experts in Town and Country Planning legislation and it is not appropriate for us to advise on conditions to be applied by the planning authority when granting planning permission, we note that it is unlikely that London Plan 2021 Policies D12 and D5 can be considered to have been met without assurances being sought that the design will progress in consultation with LFB and other emergency services. It may be appropriate to include planning conditions in relation to the above items as per the example conditions given in Appendix 5 of the London Plan Guidance: Fire Safety, issued by the GLA in February 2022.

Any queries regarding this letter should be addressed to [redacted]. If you are dissatisfied in any way with the response given, please ask to speak to the Team Leader quoting our reference.

Yours faithfully,

Assistant Commissioner (Fire Safety)

There is clear evidence that Automatic Water Fire Suppression Systems (AWFSS) can reduce the number of deaths and injuries from fire, as well as reducing the risk to firefighters.

The London Fire Brigade strongly encourages those who design, construct and approve residential and commercial buildings, to go beyond the minimum expectation of compliance and include AWFSS in a wider variety of buildings. There are also additional benefits to the inclusion of AWFSS in terms of property protection, environmental protection and business continuity.

Further guidance can be found on the Brigade's website.