

MEMORANDUM

To: John Hoban
cc:

From: Paul Hanson
Dated: 26/1/2016

B1 - MEANS OF ESCAPE OBSERVATIONS

PREMISES: Grenfell Tower, Grenfell Road
APP No: Submission 2
SUBMISSION No: S2
DRAWING No: 1279 SEA (08) 101 Rev 05 - Fire Strategy, and 1279 SEA (08) 100 Rev 06 - Fire Access
(J S Wright & Co Limited Smoke Ventilation Technical submission PSBUK1143-12 rev 3 12th June 2015 (for submission S1a))

Please also refer to marked up plans RBKC S1 where comments are added to the above plans.

I make the following comments using Approved Document B and, where appropriate, BS 9991.

Fire authority consultation

The scheme has previously been sent for consultation, this was at the stage before the new powered ventilation system was proposed.

Although the details of the powered ventilation system was sent in separately, we have decided to combine that submission with your current revised drawings to the fire authority and will forward any comments received.

Background

The scheme involves an existing building comprising residential flats with a single stairway, protected by common lobbies with a powered ventilation system intended to protect the stairway. The powered vent system appears to be an early hybrid push pull system, which appears to have powered extract. This system is to be removed.

A new powered ventilation system has been proposed (as detailed in J S Wright & Co Limited Smoke Ventilation Technical submission PSBUK1143-12 rev 3 12th June 2015) and is considered satisfactory subject to comments given later (originally covered by RBKC's observations for submission 1a) and is repeated in these observations for completeness.

The proposal involves the rerouting of the final exit from the single stairway and RBKC have negotiated with the design team to ensure the stairway remains with ventilated lobby protection up to the final exit.

Additional residential use at lower levels

The refurbishment involves a floor at a lower level (Walkway +1) with a change of use to residential accommodation and one residential flat at the level below, this known as 'walkway level' although it is a normal enclosed floor). This is protected by the powered ventilation system.

New non residential access to residential stairway

There is also a new Boxing club connecting to the single stairway at 'Walkway level' and small office accommodation at ground level. RBKC have previously agreed with the fire consultants to provide a 0.4m² natural ventilated lobby connections to the single stair and these uses. This submission proposed to use the residential ventilation system for the boxing club. This would be acceptable in principle provided that the fire loading in the boxing club is compatible with a residential type use.

Regulatory Reform Fire safety order

As you are aware, the building regulations deal with the building work proposed in an existing building and are limited to ensuring that no adverse affect takes place to any exiting situation (and that any new work complies with the regulations). Therefore the regulations would not consider whether the existing building would comply with the Regulatory Reform (Fire Safety) Order (RRO).

Comments for Client

The following comments should be read in conjunction with the marked up plans noted as S1.

1. Upper storey powered ventilation system

The proposals outlined in the Smoke Ventilation Technical submission PSBUK1143-12 rev 3 are satisfactory.

1. I note that there is the intention to bring the ventilation system down to also serves the existing ground level lobby adjacent to the lifts and switch room.
2. Final details of the key switch arrangements should be submitted when finalised.
3. Generally the components of the system should conform to the Guidance on Smoke Control to Common Escape Routes in Apartment Buildings (Flats and Maisonettes) Revision 1: June 2012 listed in section 11.3.

2. Access to the Boxing club at 'walkway level' and office use at Ground level

No objection is raised in principle to the lobby connection with the non-residential uses via the powered ventilation system provided that the fire loading in the boxing club is compatible with a residential type use.

In the case of the meeting room connecting with the horizontal escape from the residential units at Mezzanine level. It is noted a lobby is provided to separate the room from the horizontal route from the residential use at the same level.

3. Service risers opening in to stairway

Due to the reconfiguration of the stair and lobbies, some riser shafts open directly in to the stairway. This arrangement should be avoided. Is access to the risers necessary at this level (see marked up plans with symbol 'A' for these areas). Access to common lobbies is acceptable as identified by symbol 'B'.

Further to meeting on site it is understood that the riser shafts either side of the lifts are existing and may not be enclosed with fire resisting construction. There are no powers under the building regulations to require the existing shaft to be protected, however consideration should, be given to their suitability under the *Regulatory Reform (Fire Safety) Order (RRO)* and it is recommended a fire risk assessor be consulted to ensure this legislation be being complied with.

4. Marked up plans

For further comments see marked up plans RBKC S2.

Note in the inner halls to the flats, cupboards are not shown to be enclosed with fire resisting construction with FD 20 doors.

5. Further details

Details in respect to the following should be submitted: -

- a. Please confirm the extent of the building work at roof level.
- b. Escape lighting showing compliance with BS 5266 Part 1.
- c. Fire alarm system showing compliance with BS 5839 Part 1 in respect to the common parts and BS 5839 Part 6 for the fire alarm system within the flats.
- d. Mechanical ventilation showing compliance with BS 5588-9 or BS 9999.
- e. Fire signage-showing compliance with BS5499 Part 1 (or BSEN 7010).
- f. Confirmation of arrangements for alternative power supplies to life safety systems.