

(PDH-11)

**First Fire Authority consultation request
11/11/2014**

PLANNING AND BOROUGH DEVELOPMENT

DEPARTMENT OF BUILDING CONTROL, TOWN HALL, HORNTON STREET, LONDON W8 7NX

Executive Director Planning and Borough Development

Jonathan Bore

Building Control Manager John Allen



THE ROYAL BOROUGH OF
KENSINGTON
AND CHELSEA

Kensington & Chelsea Fire Safety Team
North West Area
169 Union Street
London
SE1 0LL

Direct Line:

Mobile:

Facsimile:

Email: building.control@rbkc.gov.uk

Web: www.rbkc.gov.uk

11 November 2014

Please ask for: John Hoban

My ref: FP/14/03563

Dear Sir(s)

THE REGULATORY REFORM (FIRE SAFETY) ORDER 2005
THE BUILDING REGULATIONS 2010 (as amended)

PREMISES: Grenfell Tower, Grenfell Road, LONDON, W11 1TH
APP No: FP/14/03563

I attach a copy of the LDSA/LFEPA joint consultation form giving details of proposed work under the Building Regulations.

Please inform me whether the proposed work is acceptable to you or state the variations you consider necessary. I would be grateful if this could be done within two weeks from the date of this letter. However, if this is not possible then please inform my assistant John Hoban who can be contacted on [REDACTED]

Yours faithfully

John Allen
Building Control Manager

Encl.

- Drawing Nos: 1279(05)101 Rev00, 1279(05)102 Rev00, 1279(06)100 Rev00, 1279(08)101 issue 01, 1279(08)100 issue 01.
- B1 Means of Escape Observations
- Outline Fire Safety Strategy

MEMORANDUM

To: John Hoban
cc:

From: Paul Hanson
Dated: 10/11/2014

B1 - MEANS OF ESCAPE OBSERVATIONS

PREMISES: Grenfell Tower, Grenfell Road
APP No: Submission 1
SUBMISSION No: S1
DRAWING No: 1279(08) 101 01 BS, 100 01 BS.

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 been sent for consultation, any comments will be forwarded when received.

Comments for fire authority

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.

At preliminary submission stage the mechanical engineers were seeking to confirm whether the inlet air component was powered or natural and also to determine what the extract rate is in m³/s and what the supply air volume / area of the existing system comprises. This submission S1 has not revealed any information in this respect.

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 upto 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).

RBKC building control would be satisfied under the building regulations if either:-

- a. the level of extract provided by the existing powered ventilation system is maintained at the new residential levels at 'Walkway +1 level and 'the single flat at 'Walkway level'. (On the basis of no adverse affect). Or*
- b. the ventilation extract is justified.*

During preliminary discussions an extract rate of 10 air changes was put forward by the design team (not the fire consultant), the case put forward was that this value follows the guidance of Approved Document B. However RBKC felt this was not suitable on the basis that the 10 air change figure is a value used for car park fire fighting and is based on a different design criteria to residential lobby ventilation intended to protect stairways against the ingress of smoke for the purpose of means of escape.

The current submission has not put forward any new proposals for the powered ventilation system.

The current proposal also omits the ventilated lobby to the single flat at 'Walkway level'. RBKC have suggested the common ventilated lobby arrangement used in the upper floors be extended down to this level and marked up the plans accordingly.

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 agreed with the fire consultants to provide a 0.4m² natural ventilated lobby connections to the single stair and these uses (although this is currently omitted from the recent scheme in two locations).

Therefore RBKC are not in a position to approve the proposals at this stage due to the need for the design team to establish an acceptable extract rate for the powered lobby ventilation system and the provision of ventilated lobby protection to all stairway connections to residential and other uses.

The remainder of the comments to client are self explanatory.

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).

During preliminary discussions the design team asked whether RBKC could assist in consulting the fire authority regarding their views under the RRO in respect of the existing lobby ventilation system for the building.

There is obviously an opportunity to make reasonable changes to the vent system to satisfy the RRO, whilst the refurbishment takes place.

RBKC have asked that the specific question be explained in separate

correspondence which we will pass on to yourselves when received. We have explained that you will probably need to know the existing extract rate of the lobby ventilation system or justification for any new extract rate proposed (Appendix A outlines our suggestions to the client for writing to yourselves).

Comments for Client

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

1. Revision to add residential accommodation at Walkway level

The revised residential use at walkway level opens directly into the stairway without a ventilated lobby – the plans have been marked up with a suggestion, to separate the stairway from the lobby.

We would agree with your fire consultants that the existing powered ventilation system should be brought down to this level to provide the ventilation to serve the common lobby which needs to be formed between the flat and the stairway. This is not currently proposed on the plans.

2. The revised 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 a 0.4m² natural ventilated lobby, however these have been omitted from the current scheme.

The 0.4m² ventilated should be reintroduced for the revised access points to the residential stairway. See marked up plans.

In the case of the meeting room connecting with the horizontal escape from the residential units at Mezzanine level. It is recommended that consideration be given to the provision of an unvented lobby rather than ventilation of the room itself. The latter is unlikely to give protection equivalent to a lobby.

3. Upper storey powered ventilation system

The existing building appears to have an early push pull powered ventilation system providing powered extract and powered or natural inlet via enclosed riser shafts.

RBKC building control would be satisfied under the building regulations if either:-

- a. The performance of the existing system is maintained. Details of the performance of the existing and proposed systems are requested to be submitted to enable RBKC to be satisfied that the system would not be adversely affected by the intended works.

Or

- b. The ventilation extract rate is justified to be suitable for the propose.

The Smoke Control association 'Guidance on smoke control in Apartment buildings' gives upto date guidance on powered residential extract systems.

Any new equipment for the system should comply with the recommendations of this guide.

If data on the existing system is available, a way forward might be to measure the flow rates of the present situation and provide information about the proposed system.

Therefore in order to consider your proposal details should be submitted of the following:-

- Existing extract rate in m³/s
- Existing 'inlet air' Supply rate in m³/s
- Proposed extract rate in m³/s
- Proposed 'inlet air' Supply rate in m³/s
- Confirmation of design of existing system. Is it mechanical ventilation or natural or a combination
- Method of activation of natural/powered system and fire brigade controls
- Size of natural/powered vent shafts

4. 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'.

5. Refuse chutes

Please clarify the existing level of protection to the refuse chutes and confirm whether they will serve the altered levels.

6. Marked up plans

For further comments see marked up plans.

7. Fire strategy document by Exova Warrington ref MTY14652R

3.1.1. The report mentions various ventilated lobby arrangements, which were complete in the preliminary submissions, but as mentioned above have been omitted from submission 1.

3.1.1. Regarding the proposed venting of the community room – it is recommended this separation in this area be completed without venting the room (see marked up plans RBKC S1).

8. 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. Details of the powered smoke shafts equipment together with the necessary control mechanisms.
- g. Confirmation of arrangements for alternative power supplies to life safety systems.

Appendix A

Consultation with Fire Authority regarding the lobby ventilation system

You have requested RBKC consult the Fire authority for the purpose of assuring your client regarding responsibilities under the Regulatory Reform (Fire safety) Order. I note the information submitted by Max Fordham, including the email dated 8/11/13 further explaining the original strategy. However as outlined in the email of 11/11/13 from John Allen of this office, I would recommend the following approach.

The question that needs to be proposed to the fire authority is whether the replacement smoke extract system to the residential parts will be acceptable for the purpose of satisfying a risk assessment under the above-mentioned legislation.

A letter needs to be written that can be forwarded to the Fire Authority that presents information on the existing smoke extract system (Design and performance) and the proposed replacement system.

This should include the following:

- Confirmation of design of existing system. Is it mechanical ventilation or natural or a combination
- Method of activation of natural/powered system and fire brigade controls
- Size of natural/powered vent shafts
- Powered ventilation extract rate in m³/s
- Inlet air provision (Size if natural in m² or m³/s if powered)
- Confirmation of proposed system, same responses as above.
- Any differences to the existing system i.e. that it is being used for the normal ventilation system should be indicated.
- The case to justify the proposal.

Upon receipt I will pass your question and information to the Fire Authority.



LONDON FIRE & EMERGENCY PLANNING AUTHORITY

PLANNING AND BOROUGH DEVELOPMENT

DEPARTMENT OF BUILDING CONTROL, TOWN HALL, HORNTON STREET, LONDON W8 7NX

Executive Director Planning and Borough Development

Graham Stallwood

Head of Building Control John Allen



THE ROYAL BOROUGH OF
KENSINGTON
AND CHELSEA

LDSA/ACAI/LFEPA JOINT CONSULTATION PROCEDURE (CONSULTATION ON MEANS OF ESCAPE APPLICATION) The Regulatory Reform (Fire safety) Order 2005 Article 45.

SECTION 1. GENERAL INFORMATION

Premises	Grenfell Tower, Grenfell Road, LONDON, W11 1TH
BCB Ref	FP/14/03563
Date received	05/08/2014 16:21:48
Statutory deadline	09/09/2014
BCB Case Officer	John Hoban
Direct Line: [REDACTED]	Mobile: [REDACTED]

Proposed work	New floor areas, new overcladding & windows, new heating system, reconfigured podium and entrance.
Use of premises	Residential with new boxing club
Status of building	Existing building

Agent Details

Studio E Architects Ltd
310 Linton House
Union Street
London
SE1 0LH

Applicant details

Claire Williams
KCTMO, Network Hub
First Floor, Kensal Road
London
W10 5BE

SECTION 2. MEANS OF ESCAPE IN CASE OF FIRE

IS THE PROPOSED WORK:

SIMPLE <input type="checkbox"/>	STANDARD <input checked="" type="checkbox"/>	COMPLEX <input type="checkbox"/>
(Drawings not enclosed)	(Drawings enclosed)	(Tripartite meeting requested)
ADB/BS 5588 APPLIED? YES/NO	FIRE ENGINEERED SOLUTION?	
	YES	
DOES THE APPLICATION COMPLY?	YES with conditions	
IF NO, WHY NOT	See attached schedule / Marked up plans	
DOCUMENTS USED IN ASSESSMENT	Approved Document B / Other	

Other Documents used:

IS A RELAXATION BEING CONSIDERED?	[NO]
OR	
DOES OTHER LEGISLATION APPLY?	[NO]
BUILDING ACT 1984: SECTION 24/SECTION 72 (OUTER LONDON)	<input type="checkbox"/>
LONDON BUILDING ACTS (AMEND) ACT 1939: SECTION 20 (INNER LONDON)	<input type="checkbox"/>
LONDON BUILDING ACTS (AMEND) ACT 1939: SECTION 35 (INNER LONDON)	<input type="checkbox"/>
PLANNING (LISTED BUILDINGS & CONSERVATION AREAS) ACT 1990	<input type="checkbox"/>

PROPOSED DECISION UNDER B1 OR OTHER LEGISLATION

APPROVAL <input type="checkbox"/>	CONDITIONAL APPROVAL <input checked="" type="checkbox"/>	REFUSAL <input type="checkbox"/>
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FURTHER DETAILS APPENDED? YES/NO (Not required in case of simple works?)

SECTION 3. ACTIVE FIRE FIGHTING MEASURES PROPOSED

SPRINKLER INSTALLATION	NO
SMOKE CONTROL SYSTEM	YES
AUTOMATIC FIRE DETECTION	YES
OTHER ACTIVE MEASURES	Residential smoke control to stair lobbies.

Specify:

ANY OF THE ABOVE ITEMS "TRADE OFF" MEASURES? NO

SECTION 4. OTHER LEGISLATION APPLICABLE
(BCB surveyors to liaise with appropriate section dealing with these matters)

ENTERTAINMENT LICENSING	
INDOOR SPORTS	<input type="checkbox"/>
MUSIC/DANCING	<input type="checkbox"/>
THEATRES ACT	<input type="checkbox"/>
CINEMAS	<input type="checkbox"/>
SAFETY AT SPORT GROUNDS	
DESIGNATED GROUNDS	<input type="checkbox"/>
REGULATED STANDS	<input type="checkbox"/>
UNDERGROUND RAILWAYS	
SECTION 12 REGS	<input type="checkbox"/>
PLANNING (LISTED BUILDINGS & CONSERVATION AREAS) ACT 1990	<input type="checkbox"/>
LOCAL FIRE SAFETY REQUIREMENTS	
Seperate consultation to follow	

SIGNED (Section 1-5) John Hoban	For BC Surveyor	05 February 2016
SIGNED (Section 1-5) Paul Hanson	For MOE Surveyor	05 February 2016

BRIGADE REF. NO
OFFICER'S NAME
TEL. NO

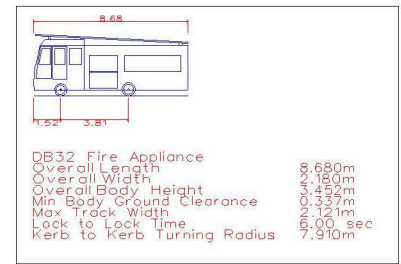
	SATISFACTORY	UNSATISFACTORY
MEANS OF ESCAPE	<input type="checkbox"/>	<input type="checkbox"/>
FIRE FIGHTING ACCESS	<input type="checkbox"/>	<input type="checkbox"/>

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

(For which the Brigade has either a consultative or enforcement interest)

GAMING ACTS 1968	YES/NO
PETROLEUM (CONSOLIDATION) ACT 1928	YES/NO
LICENSING ACT 1964	YES/NO
PLANNING (LISTED BUILDINGS & CONSERVATION AREAS) ACT 1990	YES/NO
OTHER (specify)	YES/NO

SIGNED (For LFEPa) Date



Smoke Detection
System complying with BS 5839-1
To activate powered vent and natural vent systems

Smoke Detection
System complying with BS 5839-6 Grade D Category LD3

Exit signs
To BS 5499: Part 1 or BSEN 7010 and sized to BS 5499: Part 4

Fire Resisting corridor
Fire resisting enclosure with FD30S doors for dead end condition in nursery accommodation.

Protected Stairway
Fire resisting enclosure with FD30S doors
Doors on escape routes provided with simple fastenings - without the use of a key

Common Lobbies
Fire resisting enclosure with FD60S doors
Existing powered ventilation system - Powered inlet and outlet.
Existing extract rate 7 m³/s
Existing supply 7 m³/s
No details of existing extract / supply rates are given therefore no consideration could be given of adverse effect on existing systems.
If system designers wish to redesign the system without consideration of adverse effect, justification for the proposed extract rate needs to be submitted, including performance modelling.

Doors on escape routes provided with simple fastenings - without the use of a key

Common Lobbies serving non residential use
Fire resisting enclosure with FD60S doors
Natural vent 0.4m².

Doors on escape routes provided with simple fastenings - without the use of a key

Risers accessed from Stairway
Access should not be provided to services from the single stairway.
(Hot and cold water/dry riser services are acceptable in metal pipes with suitable fire stopping). (Note in the existing building these risers were in the lobby). Can these access panels be sealed at this level?

Risers accessed from common Lobbies
Fire resistance should be achieved from the fire side of the enclosure. Access to services from the lobby should be via an FD30S with 'Fire Door Keep Locked Shut' signage.

- NOTE
1. THIS DRAWING IS IN PRESENTATION STAGE & L.P.
 2. THE CONTRACTOR MUST OBTAIN ALL NECESSARY PERMITS AND APPROVALS TO BE TAKEN INTO CONSIDERATION.
 3. WHERE ANY DISCREPANCIES ARE FOUND BETWEEN DRAWINGS THE DESIGNER'S DRAWING SHALL TAKE PRECEDENCE. IF ANY DISCREPANCY IS FOUND THE ATTENTION OF THE ARCHITECT MUST BE CALLED TO IT.
 4. WHERE DISCREPANCIES ARE FOUND BETWEEN DRAWINGS THE ARCHITECT'S DRAWING SHALL TAKE PRECEDENCE. IF ANY DISCREPANCY IS FOUND THE ATTENTION OF THE ARCHITECT MUST BE CALLED TO IT.

- KEY
- 30 minute rated construction line
 - 60 minute rated construction line
 - 120 minute rated construction line
 - Final Exit
 - Escape route in one direction
 - Escape route in multiple directions
 - 1hr Fire Curtain
 - DR Dry Riser
 - 32 Room Occupancy
 - ADV vented lobby
 - Mech vented lobby / reused duct

RBKC MOE - S1
Comments in blue by RBKC Building Control



EMPLOYER'S REQUIREMENTS

STUDIO E ARCHITECTS LTD

210 Brick Works, 102-100 Union Street, London SE1 1UL

GRENFELL TOWER REGENERATION PROJECT

PROJECT

FIRE ACCESS PLAN

REVISION

1:100@A1 24/10/13

DATE: 24/10/13

1279 (08)100 01 BS

RBK00033896/14
RBK00033896_0014

