

**REVISED**

**Report  
for  
London Borough of Hammersmith and Fulham**



**FIRE RISK ASSESSMENT  
OF  
SHEPHERD'S COURT, SHEPHERD'S BUSH GREEN**

July 2017

Responsible Person (e.g. employer) or person having control of the premises:	London Borough of Hammersmith and Fulham (LBHF)
Address of Premises:	Shepherd's Court, Shepherd's Bush Green, London W12 8PN
Person(s) Consulted:	Mr G. Coupar, Strategic Asset Management Consultant, Housing Services Division, LBHF
Assessor:	M. Hoare
Date of Fire Risk Assessment:	11 <sup>th</sup> May and 27 <sup>th</sup> June 2017
Date of Previous Fire Risk Assessment:	8 <sup>th</sup> October 2015 (in-house)
Suggested Date for Review <sup>1</sup> :	June 2018
BAFE SP205 Certificate Number:	LS0035642

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<sup>1</sup> This risk assessment should be reviewed by a competent person by the date indicated above or at such earlier time as there is reason to suspect that it is no longer valid, or if there have been significant changes, or if a fire occurs.

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# INTRODUCTION

## About this report

This report is intended to assist you in compliance with Article 9 of the Regulatory Reform (Fire Safety) Order 2005 (the 'Fire Safety Order'), which requires that a risk assessment be carried out.

The report begins by setting out general information relating to the premises (Sections 1-7). This is followed by consideration of fire hazards that may be present and the measures to eliminate or control them (Sections 8-17). The measures in place to protect people in the event of fire are considered next (Sections 18-25), followed by a review of the arrangements for managing fire safety in your premises (Sections 26-29). We then conclude with our qualitative assessment of the risk to life from fire.

## Recommendations

Our recommendations are outlined in an Action Plan. This sets out the measures it is considered necessary for you to take to satisfy the requirements of the Fire Safety Order and to protect people from fire. It is particularly important that you study the Action Plan, and, if any recommendation in the Action Plan is unclear, you should seek clarification.

You are advised that this risk assessment forms only the foundation for management of fire safety in your premises and compliance with the Fire Safety Order. You should act on the recommendations in the Action Plan and record what you have done. This will demonstrate to the enforcing authority your commitment to fire safety and to fulfilling your legal obligations.

## Reviewing your fire risk assessment

The Fire Safety Order requires that you keep your risk assessment under review. A date for routine review is given on the front of this report, but you should review the report sooner should there be any reason to suspect it is no longer valid, if a significant change takes place or if a fire occurs.

## Record of fire safety arrangements

The Fire Safety Order requires that you give effect to '*arrangements for the effective planning, organization, control, monitoring and review of the preventive and protection measures*'. These are the measures that have been identified by the risk assessment as the general fire precautions you need to take to comply with the Fire Safety Order. You must record these arrangements. While this fire risk assessment is not the record of the fire safety arrangements to which the Fire Safety Order refers, much of the information contained in this report will coincide with the information in that record.

## Scope and limitations of the fire risk assessment

We have conducted the fire risk assessment in accordance with the Fire Industry Association's publication 'Fire Risk Assessors – Standard Scope of Services'.

We have based our assessment on the situation we were able to observe while at the premises and on information provided to us, either verbally or in writing. Our surveys do not involve destructive exposure, and it is not always possible to inspect all rooms and areas, nor inspect less readily accessible areas, such as voids above ceilings. It is, therefore, necessary to rely on a degree of sampling and also reasonable assumptions and judgement.

## **Dangerous Substances**

This fire risk assessment has considered dangerous substances that are used or stored in your premises, only to the extent necessary to determine the adequacy of the *general fire precautions* (as defined in Article 4 of the Fire Safety Order) and to advise you accordingly. If dangerous substances are used or stored in your premises, you should ensure that you have met the duties under the Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR) that apply to you, including carrying out a risk assessment of the relevant work activities.

## **BAFE SP205 Scheme**

We are certificated under the BAFE Fire Protection Industry Scheme SP205 Part 1 Life Safety Fire Risk Assessment and are authorised to issue a certificate of conformity for this fire risk assessment. You will find this at the end of this report.

## **Disclaimer**

The purpose of this report is to provide an assessment of the risk to life from fire, and, where appropriate, to make recommendations to ensure compliance with fire safety legislation. The report does not address the risk to property or business continuity from fire.

The submission of this report constitutes neither a warranty of future results by C.S. Todd & Associates Ltd, nor an assurance against risk. The report represents only the best judgement of the consultant involved in its preparation, and is based, in part, on information provided by others. No liability whatsoever is accepted for the accuracy of such information.

## EXECUTIVE SUMMARY

This fire risk assessment relates to a purpose-built block of flats. Our assessment is that the risk to life from fire in these premises is 'moderate' as defined later in this report. We have concluded this by taking into account the likelihood of fire and the consequences for life safety in the event of fire.

The main findings of the report are as follows:

- Overall, a reasonable standard of protection to the means of escape was noted. However, several maintenance issues need to be addressed.
- Some flat entrance doors are not fitted with self-closing devices.
- Some flat entrance doors do not appear to be fire-resisting.
- Some access doors to service risers are not adequately maintained fixed shut.
- Adequate smoke ventilation is provided to the common escape staircase and common corridors.
- Gas supply pipework needs to be inspected and tested.
- The dry rising main needs to be inspected and tested.
- Interim fire safety measures need to be implemented pending the removal of the composite infill panels fitted to the windows.

Given that, overall, there is good compartmentation and means of escape in the block, that the extent of composite infill panels to windows is limited and that interim measures are to be put in place, it is considered appropriate to continue to occupy the premises while the improvement works are completed.

Full details of the findings can be found later in this report and our recommendations are set out in the Action Plan.

## GENERAL INFORMATION

### 1. THE PREMISES

1.1 Number of floors: 20 (See Section 5 below.)

1.2 Number of flats: 102

1.3 Brief details of construction and approximate age of building:

1970s, purpose-built tower block of concrete frame construction, with concrete floors, brick exterior walls and a flat, concrete roof.

The exterior windows to the block were replaced in 2010, and the windows fitted to the lounge and bedrooms in each flat were fitted with composite, infill panels.

1.4 Occupancy:

Residential – purpose-built block of flats.

### 2. THE OCCUPANTS

2.1 Approximate maximum number of employees at any one time:

There are no employees permanently based on the premises. (See Section 5 below.)

2.2 Approximate maximum number of residents and visitors at any one time:

350 (See Section 5 below.)

### 3. OCCUPANTS ESPECIALLY AT RISK FROM FIRE

3.1 Sleeping occupants:

350 (See Section 5 below.)

3.2 Occupants in remote areas and lone workers:

Caretaker services staff, occasional contractors and site security staff.

3.3 Others:

None.

### 4. FIRE LOSS EXPERIENCE

<u>Date</u>	<u>Brief details</u>	<u>Cause</u>	<u>Action taken (if any)</u>
19 <sup>th</sup> August 2016.	See Section 5.	Electrical fire in a domestic appliance in the kitchen of Flat 28.	Cause of external fire spread beyond flat of fire origin, involving external composite infill panels to windows, is subject to ongoing investigation and action. (See comments in Section 19.)

## 5. OTHER RELEVANT INFORMATION

- Shepherd's Court is a purpose-built block of residential flats, located over retail and commercial premises. The retail shops and commercial premises are located on the ground and first floor levels, and there are no internal openings between the flats and the retail premises. The flats have their own independent entrance at street level to the front of the block and there is a service area to the rear of the block. There is an open-air amenity deck on the second floor, located over the retail premises, for the use of the residents. There are 17 residential floors above the second floor, with a total of 102 flats. There are six self-contained flats on each floor, which are accessed via a common corridor, with access to the lifts and the single staircase.
- There is a mix of one-, two- and three-bedroom flats, some of which are leasehold and others are occupied by tenants of LBHF.
- This risk assessment relates to:
  - Fire precautions within the common parts and other areas controlled by the client.
  - Fire protection systems that are the responsibility of the client.
- The common parts comprise the entrance lobby, staircase, corridors, lifts, service and electrical riser cupboards, bin room, plant and service rooms, and the roof level lift motor room.
- The retail and commercial premises do not form part of this risk assessment and were not included in the survey.
- There was no access available into the main electrical sub-station to the block, access to which is restricted to the supply company.
- The maximum number detailed in 2.2 and 3.1 has not been calculated, as details were not available. However, the expectation is that the maximum occupancy will be around 350 persons in the residential areas of the building at any one time.
- No employees or contractors are normally based in the premises. However, there is a caretaker service available at certain times of the day Monday to Friday, and the premises are subject to periodic visits by LBHF staff.
- While the occupants of the flats are 'relevant persons', the flats, as domestic dwellings, are outside the scope of the Regulatory Reform (Fire Safety) Order 2005 and, as such, the inspection was confined to the common parts.
- However, as part of the survey of common areas, the flats affected by the fire of 16<sup>th</sup> August 2016 and one other flat were entered to confirm the suitability of the fire safety arrangements that are the responsibility of the client, and to establish the nature of the fire separation between the flats and the common parts. Accordingly, a Type 1 risk assessment, as defined in the Local Government Association's guidance on *Fire Safety in Purpose-Built Blocks of Flats*, has been carried out.
- This is a 'general needs' block, and there may be occupants with varying degrees of physical disability in line with the general population.
- The client has limited control over privately owned leasehold flats within the premises.
- It should be noted that it is not normal practice to retrospectively apply the current guidance relating to the design and construction of new buildings when assessing existing buildings, other than where the original design principles are far removed from those acceptable today. Nevertheless, it is appropriate to consider developments in fire safety technology and practice that could be reasonably applied to an existing building. Therefore, we have considered such developments.
- On 19<sup>th</sup> August 2016, a fire started in Flat 28 on the seventh floor and spread externally to the 12<sup>th</sup> floor. A total of six flats were affected by fire and smoke, and one flat, below the floor of origin, was subject to water damage. The flat of fire origin was extensively damaged. The external fire spread to the other flats involved the external composite, infill panels fitted to the windows, which allowed flames and smoke to rise vertically to enter the open windows of the flats above. This report takes into account the subsequent investigations carried out



by LBHF into the reason for such extensive vertical fire spread and the outcome of small scale tests to determine the fire performance of the panels. As a result of these investigations, a decision has been made to replace the composite panels as part of a project to also replace the windows.

## 6. REFERENCES

- Account has been taken of the guidance supporting the legislation that is relevant to the premises, including the Local Government Association's *Fire Safety in Purpose-Built Blocks of Flats*, LACoRS<sup>2</sup> *Housing – Fire Safety. Guidance on fire safety provisions for certain types of existing housing* and HM Government Guide to Fire Safety Risk Assessment – Sleeping Accommodation.
- Where relevant, reference may also have been made to the guidance supporting the Building Regulations and other sources applicable to new buildings. However, this does not imply that existing premises should be brought up to current day standards retrospectively.
- The full titles of British Standards and other references used or quoted in the report are given on the last pages.

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<sup>2</sup> Local Government Regulation (formerly the Local Authorities Coordinators of Regulatory Services).

## 7. RELEVANT FIRE SAFETY LEGISLATION

7.1 The following fire safety legislation applied to these premises:

Regulatory Reform (Fire Safety) Order 2005.

7.2 The above legislation is enforced by:

Local fire and rescue authority.

7.3 Other legislation that makes significant requirements for fire precautions in these premises (other than the Building Regulations 2010 and any relevant Local Act):

Housing Act 2004.

7.4 The other legislation referred to above is enforced by:

Local authority.

7.5 Is there an alterations notice in force? Yes  No

7.6 Comments:

- The risk assessment is limited in its scope to the areas covered under the Regulatory Reform (Fire Safety) Order 2005 and includes common access stairways and corridors, common facilities and any fire prevention and fire protection measures necessary to safeguard the use of the common areas of the premises.
- It should be noted that the Housing Act 2004 applies to the whole of the premises, and additional fire safety measures may be required under the Housing Act in areas not within the scope of the Regulatory Reform (Fire Safety) Order 2005.
- You are reminded that material alterations involving means of escape, fire warning systems or structural fire precautions require approval from a building control body.

## FIRE HAZARDS AND THEIR ELIMINATION OR CONTROL

### 8. ELECTRICAL SOURCES OF IGNITION

8.1 Are reasonable measures taken to prevent fires of electrical origin? Yes  No

8.2 More specifically:

Fixed installation periodically inspected and tested? N/A  Yes  No

Portable appliance testing carried out? N/A  Yes  No

8.3 Comments and hazards observed:

- LBHF's policy is to subject the fixed installations serving the common parts of the premises to periodic inspection and testing every five years. However, it was not possible to confirm the date of last inspection and test, or view any inspection and test records.
- The fixed installations within tenanted flats are subject to periodic inspection and test in accordance with LHBF's policy and on change of tenancy.
- Owners of leasehold flats are responsible for their own inspection and testing.
- There are no portable electrical appliances within the common parts.
- Portable appliances in flats have not been considered.

### 9. SMOKING

9.1 Are reasonable measures taken to prevent fires as a result of smoking? Yes  No

9.2 More specifically:

Smoking prohibited in appropriate areas? N/A  Yes  No

Suitable arrangements for those who wish to smoke? N/A  Yes  No

Smoking policy appeared to be observed at time of inspection? N/A  Yes  No

'No smoking' signs provided in the common areas? Yes  No

9.3 Comments and hazards observed:

- Smoking is not permitted in the common areas.
- There was no evidence of smoking in these areas at the time of the survey.

- 'NO SMOKING' signs have been provided in the common areas.
- Residents and visitors are permitted to smoke on the open-air amenity deck. This practice is not considered to present a significant risk.
- There was some evidence of smoking in several of the disused rooms on the open-air deck area. Although not considered to be a significant risk, as most of the rooms were either empty or had limited storage, a recommendation has been included in the action plan to ensure that these rooms are secured to prevent unauthorised access.
- Not considered in relation to flats, where it is foreseeable that some occupants will smoke.

## 10. ARSON

10.1 Does basic security against arson by outsiders appear reasonable<sup>3</sup>? Yes  No

10.2 Is there an absence of unnecessary fire load in close proximity to the premises or available for ignition by outsiders? Yes  No

10.3 Comments and hazards observed:

- The main entrance doors to the premises are secured to prevent unauthorised access.
- Refuse bins are stored in a well ventilated, internal bin room to the rear of the block, which has a separate exit leading to a common service area.
- CCTV is provided to cover the common areas and entrances on the ground and second floor levels. This is monitored by security staff at the security office, which is located adjacent to Woodford Court. The security office is manned between the hours of 08.00 and 23.30. Outside these hours, access is available to a central, mobile security team.
- Security staff also undertake periodic inspections of the common areas.
- Access onto the open deck amenity area is controlled by security, and the door from the block onto the deck is secured to prevent access between 20.00 hours and 09.00 hours. Residents can access the deck outside of this period by means of a security access fob.
- Several of the disused rooms on the external deck area were not adequately secured to prevent unauthorised access (see comments in 9.3).

<sup>3</sup> **Note:** C.S. Todd & Associates Ltd are not specialists in the field of security. If specific advice on security (including security against arson) is required, the advice of a security specialist should be obtained.

## 11. PORTABLE HEATERS AND HEATING AND VENTILATION INSTALLATIONS

11.1 Is there satisfactory control over the use of portable heaters? N/A  Yes  No

11.2 Are fixed heating and ventilation installations subject to regular maintenance? N/A  Yes  No

11.3 Comments and hazards observed:

- There are no portable heaters in use in the common parts.
- There is no fixed heating provided in the common parts
- Heating systems and portable heaters within individual flats have not been considered. However, it is understood that gas heating systems in tenants' flats are subject to annual gas safety checks and that all tenants' flats have current, valid gas safety certificates.

## 12. COOKING

12.1 Are reasonable measures taken to prevent fires as a result of cooking? N/A  Yes  No

12.2 Comments and hazards observed:

- There are no cooking facilities provided within the common parts.
- Cooking facilities in flats have not been considered.

## 13. LIGHTNING

13.1 Does the building have a lightning protection system? Yes  No

13.2 Comments and deficiencies observed:

A lightning protection system is fitted to the building.

## 14. HOUSEKEEPING

14.1 Is the overall standard of housekeeping adequate? Yes  No

14.2 More specifically:

Combustible materials appear to be separated from ignition sources? Yes  No

Avoidance of unnecessary accumulation or inappropriate storage of combustible materials or waste? Yes  No

Gas and electricity intake/meter cupboards adequately secured and kept clear of combustible materials?

N/A  Yes  No

14.3 Comments and hazards observed:

- It is important that the common parts that form escape routes from the building are kept free of combustible materials and ignition sources.
- A 'zero tolerance' approach has been introduced, which prohibits the storage of combustible materials and residents' possessions in the common escape routes.
- This policy is communicated to all residents.
- The situation is monitored on a regular basis by LBHF staff, during periodic estate inspections to the premises.
- The standard of housekeeping in the common escape routes, staircase and corridors was very good, with no significant risks identified.
- The rear bin area is used to temporarily store larger items of furniture and goods awaiting collection for disposal. This is not considered to present a significant risk, as the bin area is ventilated to open air and is separated from the remainder of the premises by two sets of fire-resisting doors. However, a recommendation has been included in the action plan as a matter of best practice, to ensure that levels of storage are kept to a minimum.
- The mains electrical intake room is situated off the rear bin room.
- The electric meters for the flats are situated in common service riser cupboards in the corridors to the flats. The doors to these cupboards are not secured, as residents require access to the meters. However, the doors to the cupboards are fire-resisting and are fitted with self-closing devices.
- There are service riser shafts situated in the common corridors to the flats. These risers commonly contain shared services, such as water, soil pipes and ventilation ducts, that are shared between two flats. The access doors to these risers are fire-resisting and are fitted with locks that allow residents to access the services in the risers. However, several of the access doors were open at the time of the survey, several of the locks were broken and some doors had been removed. (See comments in 18.3.)

**15. HAZARDS INTRODUCED BY OUTSIDE CONTRACTORS AND BUILDING WORKS**

15.1 Is there satisfactory control over works carried out in the building by contractors?

N/A  Yes  No

15.2 Comments:

- LBHF uses approved contractors, who are required to submit method statements, risk assessments for safe systems of work and, where necessary, arrangements for 'hot work' to the client.
- Mitie Ltd is LBHF's primary approved contractor for major refurbishment works on the block.
- LBHF also undertakes ongoing monitoring of work carried out by external contractors and internal maintenance staff on site.

**16. DANGEROUS SUBSTANCES<sup>4</sup>**

16.1 Are the general fire precautions adequate to address the hazards associated with dangerous substances used or stored within the premises<sup>5</sup>?

N/A  Yes  No

16.2 Comments:

There are no dangerous substances used or stored in the common parts.

**17. OTHER SIGNIFICANT FIRE HAZARDS THAT WARRANT CONSIDERATION**

17.1 Hazards:

Gas supply pipes fitted in the common corridors to flats.

17.2 Comments:

- The main gas supply pipework for the block is initially run externally, on the outside of the block, and enters the building on the first of the residential floor levels. The main supply pipe then rises vertically through each residential floor, and on each floor level, within the common corridor, a gas supply pipe is taken off to serve the individual flats.
- There is an external, high-level isolation valve fitted to the main gas supply. The wheel to the valve has been removed, presumably to prevent unauthorised persons from tampering with the supply and/or in accordance with gas safety regulations. However, this could prevent or delay the fire and rescue service from isolating the supply to the block in the event of a serious fire.
- The internal gas supply pipework is run at high level in the common corridor and passes into the flats. The gas meters are fitted internally within the flats. There are small, metal gas meter reading panels

<sup>4</sup> For the purpose of this risk assessment and the Fire Safety Order, dangerous substances are primarily explosive, highly flammable or flammable substances and oxidizing agents.

<sup>5</sup> Small quantities with negligible impact on the appropriate fire precautions need not be taken into account.

fitted in the walls to the flats; the panels have external metal covers and Georgian-wired glass. These appear to be the original panels, fitted at the time of construction.

- Although it was not possible at the time of the survey to confirm this, it is assumed that the gas installation was installed in accordance with the recommendations of Section 2.42 of Approved Document B, for compliance with the Pipeline Safety Regulations 1996 and the Gas Safety (Installation and Use) Regulations 1998. It was not possible to confirm whether the gas installation is subject to maintenance and servicing in accordance with the Gas Act 1986, as amended by the Gas Act 1995.



## FIRE PROTECTION MEASURES

### 18. MEANS OF ESCAPE

- 18.1 Is the design and maintenance of the means of escape considered adequate? Yes  No
- 18.2 More specifically:
- Are there reasonable distances of travel:
- where there is escape in a single direction? N/A  Yes  No
  - where there are alternative means of escape? N/A  Yes  No
- Is there adequate provision of exits? N/A  Yes  No
- Do fire exits open in the direction of escape, where necessary? N/A  Yes  No
- Are the arrangements provided for securing exits satisfactory? N/A  Yes  No
- Is the fire-resisting construction protecting escape routes and staircases of a suitable standard and maintained in sound condition<sup>6</sup>? N/A  Yes  No
- Is the fire resistance of doors to staircases and the common areas considered adequate, and are the doors maintained in sound condition? N/A  Yes  No
- Are suitable self-closing devices fitted to doors in the common areas? N/A  Yes  No
- Is the fire resistance to doors to meter cupboards/store rooms/plant rooms in the common areas considered adequate, and are they adequately secured and/or fitted with suitable self-closing devices? N/A  Yes  No
- Is the fire resistance of flat entrance doors considered adequate, and are doors maintained in sound condition? N/A  Yes  No
- Are suitable self-closing devices fitted to flat entrance doors and, where fitted, maintained in good working order? N/A  Yes  No
- Are there adequate smoke control provisions provided to common escape routes, where necessary? N/A  Yes  No
- Are all escape routes clear of obstructions? N/A  Yes  No

<sup>6</sup> Based on visual inspection of readily accessible areas, with a degree of sampling where appropriate.

Are all fire exits easily and immediately openable?

N/A  Yes  No

Is it considered that the premises are provided with reasonable arrangements for means of escape for disabled people?

N/A  Yes  No

### 18.3 Comments and deficiencies observed:

- This is a purpose-built block of flats, and it is our understanding that the design principles embodied in the relevant building legislation/regulations applicable at the time of construction included adequate compartmentation, protected escape routes and the provision of smoke ventilation.
- On this basis, the occupants of the flats, other than those in which a fire occurs, should be able to remain in their flats in relative safety, unless, subsequently, their flat becomes affected by fire or smoke, or until directed otherwise by the fire and rescue service.
- The means of escape consist of a single protected, central core staircase. The staircase is accessed off a common corridor on each floor level. The flat entrance doors open directly onto the common corridors, which also contain the lifts.
- The staircase discharges into a protected corridor at ground floor level, which provides access to the entrance and lift lobby, and to the main entrance door to the block at street level. The protected corridor at the base of the staircase also provides access to the rear bin area.
- The main entrance door is easily openable from the inside without the use of a key.
- Smoke ventilation in the staircase is provided in the form of a vertical, natural ventilation shaft. The shaft has an external opening at ground floor level and an external vent at roof level. There is a permanently open vent into the shaft at the head of the staircase. On each of the other residential floor levels, there are openings into the vertical shaft from the staircase. The openings are fitted with solid, metal doors that would allow the fire and rescue service to vent individual floors. It was not possible to confirm whether all of these doors can be opened.
- Smoke ventilation in the common corridors is provided in the form of permanently open vents. There are two permanent vents provided, one in each of the two external walls to the corridors. Internal mesh screens have been fitted to these vents, which could reduce the effectiveness of the vents.
- The flat entrance doors appear to be a mix of notional fire-resisting doors, without intumescent strips or smoke seals and fitted with unprotected

letterboxes, some replacement, upgraded notional fire-resisting doors, with strips and/or seals, fitted with unprotected letterboxes, and new FD30S doors, fitted with protected letterboxes. In our view, these doors, other than the specific flat entrance doors mentioned below, would provide an adequate period of fire resistance. However, in the long term, the doors without strips and seals or protected letterboxes should be upgraded or replaced with new FD30S doors.

- The flats also have inner hallways, with notional fire-resisting doors fitted to the kitchens and lounges opening onto the hallway.
- The flat entrance doors have been fitted with external, overhead self-closing devices. However, a small number of flat entrance doors do not have external self-closing devices fitted. It is foreseeable that these doors will have internal self-closing devices, but it was not possible to confirm this. Flat entrance doors without external self-closing devices include those to Flats 54, 65, 71, 77, 80, 83 and 102.
- A small number of flat entrance doors have been changed by the resident/leaseholder, and it was not possible to confirm from a visual inspection whether these doors would provide an adequate degree of fire resistance. Similarly, a small number of doors have external security gates fitted and it was not possible to adequately view the doors to confirm the type of door fitted, or whether the doors are fitted with self-closing devices. Flat entrance doors not confirmed as fire-resisting include those to Flats 3, 8, 61, 65, 67, 81 and 83.
- The entrance door frame to Flat 9 was damaged.
- The external letter plate in the entrance door to Flat 75 was missing.
- The fire-resisting doors to the staircase are fitted with intumescent strips, cold smoke seals and overhead self-closing devices. A small number of these doors were not closing effectively in their frames.
- The fire-resisting doors to the electrical meter cupboards on each floor level are fitted with intumescent strips, cold smoke seals and self-closing devices. The doors to meter cupboards are not kept locked as residents need access to the meters.
- The original fire-resisting doors between the main entrance lobby and the staircase have been replaced with new FD30S self-closing doors. The two sets of fire-resisting, self-closing doors between the base of the staircase and the bin room are fitted with intumescent strips, but not smoke seals. One of the doors to the bin room is damaged and some beading around the glass panels is missing.

- The fire-resisting doors between the base of the staircase and the entrance lobby have an excessive gap at their central meeting edges.
- There is an air brick fitted at high-level in the wall between the bin room and the corridor leading to the staircase.
- The doors to the utility room and electrical intake room, in the bin room, are fire-resisting and are kept locked shut when not in use.
- The access doors to the service riser shafts in the common corridors are fire-resisting and are fitted with locks that allow residents to access the services in the risers. However, several of the access doors were open at the time of the survey, several of the locks were broken and some doors had been removed.
- The staircase is safe for use as refuges by disabled people evacuating from the flat of fire origin. It is not normal practice to provide refuge signage or communications systems in these circumstances, and those needing assistance would be expected to seek help from other residents, or to use mobile telephones to contact the emergency services.
- Residents and visitors who access the open deck area are required to re-enter the block on the second floor, as there are no alternative means of escape available from the open deck. Although it is possible for people to make their way clear of the block to access the deck area in the adjacent block (Bush Court), the residents' security fob would not allow them access into Bush Court. However, there is an external intercom and residents can contact the security office staff, who can remotely open the doors to both blocks in an emergency.

## 19. MEASURES TO LIMIT FIRE SPREAD AND DEVELOPMENT

19.1 Is it considered that there is/are:

adequate levels of compartmentation between floors and between flats and the common escape routes<sup>7</sup>?

Yes  No

reasonable limitation of linings to escape routes that may promote fire spread?

Yes  No

as far as can reasonably be ascertained, reasonable fire separation within any roof space?

Yes  No

adequately fire protected service risers and/or ducts in common areas, where necessary, to restrict the spread of fire and smoke?

N/A  Yes  No

<sup>7</sup> Based on visual inspection of readily accessible areas, with a degree of sampling where appropriate.

19.2 As far as can reasonably be ascertained, are fire dampers provided as necessary to protect critical means of escape against passage of fire, smoke and combustion products in the early stages of a fire<sup>8,9</sup>?

N/A  Yes  No

19.3 Comments and deficiencies observed:

- This is a purpose-built block of flats, and it is our understanding that the design principles embodied in the building legislation/regulations applicable at the time of construction included adequate compartmentation.
- The floors, staircase and corridors are of concrete construction.
- There was no evidence to suggest that the existing compartmentation would not support a 'stay put' strategy.
- It was not possible to confirm whether the gas supply pipework in the common corridors is adequately fire stopped where the pipework passes through the compartment floors.
- There are common service risers, typically serving two flats, that contain utility services, including water, soil pipes and ventilation extract ducts from bathrooms and toilets. On the 11<sup>th</sup> floor, there are full height inspection openings provided to each riser, which are fitted with new fire-resisting access doors. On every other residential floor level, there are small inspection openings, fitted with fire-resisting access doors. The floors in the riser shafts appear to be adequately fire stopped at each floor level, with no apparent visible openings. The fire stopping appeared to be original, possibly provided at the time of construction.
- In a small number of the riser shafts, there are openings in the walls between the flats and the shafts, following works carried out in the flats to install new pipework and services.
- Inspection panels are fitted in the walls between the flats and the riser shafts. It was not possible to confirm whether all panels are adequately fire protected to restrict the passage of fire and smoke from a fire in a flat into the service risers.
- The bathrooms and toilets are provided with small cross-sectional, steel mechanical extract ducts, at high-level, that pass into the riser and extend into a common vertical shaft, which discharges at roof level. The extract ducts at roof level are fitted with mechanical fan units. The vents in the bathrooms and toilets are fitted with internal, hinged metal flaps that would close when the fans are not pulling air in from these rooms.

<sup>8</sup> Based on visual inspection of readily accessible areas, with a degree of sampling where appropriate.

<sup>9</sup> A full investigation of the design of HVAC systems is outside the scope of this fire risk assessment.

- The kitchens have external opening windows.
- Originally, the flats were fitted with gas-fired, ducted warm air heating systems. The heater units were fitted in the kitchens and were vented into sealed, 'Se-duct' shared vertical flues. These ducts have an open inlet at the base on the amenity deck and are open at roof level. The ducted warm air system has been removed and replaced with a central heating system, incorporating room-sealed gas fired boilers that vent direct to an external wall. It was not possible to confirm whether the openings into the 'Se-duct' flues from the individual flats have been adequately fire stopped to restrict the spread of fire and smoke.
- External wall construction falls outside the scope of the Regulatory Reform (Fire Safety) Order 2005 and it is commonly accepted that the risk of external fire spread does not form part of the fire risk assessment required under the Order. It is generally assumed that, unless there is evidence to the contrary, external wall construction, including any external cladding, would comply with the Building Regulations applicable at the time of construction, or at a later date, involving changes or refurbishment to the external construction, including any changes to external cladding.
- The fire in August 2016 did result in external fire spread involving the composite infill panels fitted to the windows. The panels are a composite material, comprising a thin steel outer casing and polystyrene core mounted on plywood, with metallic taped edges.
- Following on from the fire and the involvement of London Fire Brigade (LFB), which carried out ad hoc (non-standard) fire tests of the panels, LBHF appointed the Building Research Establishment (BRE) and C.S. Todd & Associates Ltd to further investigate the fire performance of the panels. Three standard test samples of the panel were subject to small scale fire tests to BS 476-7 to establish whether the panels achieved Class 1 surface spread performance. This, in conjunction with specified performance in the fire propagation test of BS 476-6, is a prerequisite for achieving National Class 0 performance, as defined for the purpose of the Building Regulations. The test samples failed to meet Class 1 surface spread of flame performance to BS 476-7. Subsequent fire testing to BS 476-6 was cancelled and, in the circumstances, further large scale fire testing was also dismissed.
- Following a meeting on 6<sup>th</sup> July 2017, attended by Stephen Robinson of C.S. Todd & Associates Ltd, LBHF agreed to undertake the measures detailed below:

- Advise residents that the panels will be removed.
- Stage 1 measures: Remove the panels and install temporary replacement panels that comply with the recommendations detailed in Approved Document B.
- Stage 2 measures: This will involve the replacement of all windows. The new windows will include suitable infill panels that comply with the recommendations detailed in Approved Document B (if panels are included).
- Introduce interim fire safety measures. These interim measures have been included within the comments and/or recommendations in the action plan of this report. A copy of the interim measures introduced will be forwarded to LFB by LBHF.
- Where panels are replaced, they would need to be of a type that, as a minimum, provides National product performance classification of Class 0 (in respect of surface spread of fire), and with an inner core of “limited combustibility”, as defined in Approved Document B.

## 20. EMERGENCY ESCAPE LIGHTING

20.1 Has a reasonable standard of emergency escape lighting been provided<sup>10</sup>?

N/A  Yes  No

20.2 Comments and deficiencies observed:

Emergency lighting is provided throughout the common escape routes, staircase, corridors, and plant and service rooms.

## 21. FIRE SAFETY SIGNS AND NOTICES

21.1 Is there a reasonable standard of fire safety signs and notices?

N/A  Yes  No

21.2 Comments and deficiencies observed:

- ‘FIRE EXIT’ signs are provided in the common escape routes, staircase and corridors.
- The ‘FIRE EXIT’ signage, provided in the common corridor on the second floor, does not clearly indicate that residents/visitors need to re-enter the staircase to exit the block and not exit onto the amenity deck.
- ‘FIRE DOOR KEEP SHUT’ signs are provided on the doors to the staircase and to meter and service riser cupboards.

<sup>10</sup> Based on visual inspection, but no test of illuminance levels or verification of full compliance with relevant British Standards carried out.

- Fire action notices are provided in the common areas, with information provided to support the 'stay put' policy.
- Signs, detailing the number of each floor, have been provided in the staircase. However, on some floors the signs have faded.
- A fire and rescue service premises information box is provided in the entrance foyer to the block. However, at the time of the survey, there was no information provided in the box, which was also unlocked.

## 22. MEANS OF GIVING WARNING IN CASE OF FIRE

22.1 Is a reasonable fire detection and alarm system provided in the common areas, where necessary<sup>11</sup>? N/A  Yes  No

22.2 Where appropriate, has a fire alarm zone plan been provided? N/A  Yes  No

22.3 Where appropriate, are there adequate arrangements for silencing and resetting an alarm condition? N/A  Yes  No

22.4 Comments and deficiencies observed:

- A fire detection and alarm system is not provided within the common parts, which is consistent with the design and construction of residential flats of this type.
- Although outside the scope of the Regulatory Reform (Fire Safety) Order 2005, it is recommended that smoke alarms are installed in all domestic premises, and, where this is not already the case, residents should be advised to fit smoke alarms in their flats.
- The tenants' flats surveyed were fitted with smoke alarms in the hallways. However, as part of the interim measures introduced, pending the removal of the window panels, all tenants' flats will be checked by LBHF to ensure that they have a minimum of one working smoke alarm.
- Smoke alarms in each flat should be provided in accordance with the recommendations of BS 5839-6 for a Grade D, Category LD3 system, incorporating mains-wired alarms with a battery back-up or other form of standby supply. Consideration should also be given to fitting linked heat alarms in kitchens/lounges, where not already provided, in accordance with the recommendations for a Category LD2 system.

<sup>11</sup> Based on visual inspection, but no audibility tests or verification of full compliance with relevant British Standard carried out.



## 23. MANUAL FIRE EXTINGUISHING APPLIANCES

23.1 Is there reasonable provision of manual fire extinguishing appliances? N/A  Yes  No

23.2 Are all fire extinguishing appliances readily accessible? N/A  Yes  No

23.3 Comments and deficiencies observed:

- There are no fire extinguishers provided in the common parts, which is consistent with the general approach taken within blocks of flats of this type.
- Extinguishers are provided in plant and service areas, although the extinguishers found had not been serviced for several years (see comments in 28.4).

## 24. RELEVANT AUTOMATIC FIRE EXTINGUISHING SYSTEMS<sup>12</sup>

24.1 Type of fixed system:

None.

## 25. OTHER RELEVANT FIXED SYSTEMS AND EQUIPMENT<sup>13</sup>

25.1 Type of fixed system:

- Dry rising main.
- Fireman's lifts.

Comments:

- A dry rising main is fitted to the block and outlets are provided on each floor level within the common corridors.
- The fireman's lifts appear to be the original lifts installed at the time of construction, and are fitted with a fire control switch that returns the lifts to the ground floor on activation of the switch. At the time of construction, the original lifts would have been provided with a single power supply. If this is the case, and they have not been modified, they would not be in accordance with the current standards for modern fire-fighting lifts, which would include, among other requirements, two separate power supplies.

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<sup>12</sup> Relevant to life safety and this risk assessment (as opposed to property protection).

<sup>13</sup> Relevant to life safety and this risk assessment (as opposed to property protection).

## MANAGEMENT OF FIRE SAFETY

### 26. PROCEDURES AND ARRANGEMENTS

#### 26.1 Safety Assistance:

The competent person(s) appointed under Article 18 of the Fire Safety Order to assist the Responsible Person in undertaking the preventive and protective measures (i.e. relevant general fire precautions) is:

Principal Compliance Manager, LBHF.

#### 26.2 Fire safety at the premises is managed by:<sup>14</sup>

Housing Service Director, LBHF Housing Services Division.

#### 26.3 Is there a suitable record of the fire safety arrangements?

Yes  No

Comments:

LBHF has a draft generic fire safety policy document that incorporates fire safety arrangements in purpose-built blocks of flats. We understand that this policy is due to be finalised soon.

#### 26.4 Are procedures in the event of fire appropriate and properly documented, where appropriate?

Yes  No

Comments:

- A 'stay put' evacuation policy is considered appropriate.
- In the event of a fire within an individual flat, the occupants would be expected to alert others in the flat, make their own way out of the building using the common escape routes, and summon the fire and rescue service.
- Consistent with residential flats of this type, all other occupants of flats not directly affected by a fire should be able to remain in their flats in relative safety, unless, subsequently, their flat becomes affected by fire and smoke, in which case they should leave immediately, or they are directed to evacuate the building by the fire and rescue service. This does not imply that residents should not evacuate if they are in any doubt about their safety and wish to leave, and it is safe for them to do so.
- It was not possible to confirm whether tenants and leaseholders are routinely provided with fire safety

<sup>14</sup> This is not intended to represent a legal interpretation of responsibility, but merely reflects the managerial arrangement in place at the time of this risk assessment.

advice and information on the action to take in the event of a fire. However, as part of the interim measures agreed, pending the removal of the window panels, LBHF will write to all residents and provide fire safety information and advice.

26.5 Are routine in-house inspections of fire precautions undertaken (e.g. in the course of health and safety inspections)?

N/A  Yes  No

Comments:

- Routine estate inspections are carried out and recorded. Any defects found are reported internally to the main contractor, which undertakes the necessary repairs.
- As an interim measure, pending the removal of the window panels, daily recorded fire safety inspections of the common areas will be carried out by recently appointed fire wardens. These inspections will include checks of fire-resisting doors, that escape routes are kept clear, that the perimeter of the block is kept clear and that access for the fire and rescue service is maintained.

## 27. TRAINING AND DRILLS

27.1 Are all staff given adequate fire safety instruction and training?

N/A  Yes  No

Comments:

There are no staff or contractors permanently employed on the premises.

27.2 When the employees of another employer work in the premises, is appropriate information on fire risks and fire safety measures provided?

N/A  Yes  No

Comments and deficiencies observed:

Information for contractors is provided in accordance with 15.2.

## 28. TESTING AND MAINTENANCE

28.1 Is there adequate maintenance of workplace?

Yes  No

Comments and deficiencies observed:

Overall, the block was reasonably well maintained, with only a small number of minor issues relating to the maintenance of common area fire-resisting doors and access doors to riser shafts.

28.2 Is weekly testing and periodic servicing of the fire detection and alarm system undertaken? N/A  Yes  No

Comments and deficiencies observed:

- There is no common fire detection and alarm system provided, which is consistent with residential flats of this type with a 'stay put' policy.
- Residents are responsible for testing their own smoke alarms on a regular basis.

28.3 Are monthly and annual testing routines in place for the emergency escape lighting? N/A  Yes  No

Comments and deficiencies observed:

Monthly and annual tests of the emergency escape lighting are carried out by an external contractor, although no records were available for audit.

28.4 Is annual maintenance of fire extinguishing appliances undertaken? N/A  Yes  No

Comments and deficiencies observed:

None of the extinguishers found in plant and service rooms were subject to annual maintenance.

28.5 Other relevant inspections or tests:

- Rising main.
- Fireman's lifts.
- Lightning protection system.

Comments:

- The rising main is subject to inspection and test by an external contractor. The date of the last test was 21<sup>st</sup> September 2016. However, although the records indicate that the system passed this test and was fully operational, the test was limited to an air test, due to limited access to certain floors following the fire, and a recommendation is included in the test report to carry out a water test.
- It was not possible to confirm whether the lifts are subject to relevant inspections and test.
- It was not possible to confirm whether the lightning protection system is subject to annual inspection and test.

## 29. RECORDS

29.1 Are there appropriate records of:

Fire alarm tests (where relevant)?

N/A  Yes  No

Emergency escape lighting tests?

N/A  Yes  No

Maintenance and testing of other fire protection systems and equipment?

N/A  Yes  No

29.2 Comments:

It was not possible to view the current test records for the emergency escape lighting, fire extinguishers and fireman's lifts, which, we understand, are held centrally.

## FIRE RISK ASSESSMENT

The following simple risk level estimator is based on a fire risk level estimator contained in PAS 79:

Potential consequences of fire →	Slight harm	Moderate harm	Extreme harm
Likelihood of fire ↓			
Low	Trivial risk	Tolerable risk	Moderate risk
Medium	Tolerable risk	Moderate risk	Substantial risk
High	Moderate risk	Substantial risk	Intolerable risk

Taking into account the fire prevention measures observed at the time of this risk assessment, it is considered that the hazard from fire (likelihood of fire) at these premises is:

Low

Medium

High

In this context, a definition of the above terms is as follows:

**Low:** Unusually low likelihood of fire as a result of negligible potential sources of ignition.

**Medium:** Expected likelihood of fire given the presence of the normal fire hazards (e.g. potential ignition sources) for this type of occupancy, which are generally subject to appropriate controls (other than minor shortcomings).

**High:** Significant increase in the likelihood of fire due to lack of adequate controls applied to one or more significant fire hazards.

Taking into account the nature of the premises and the occupants, as well as the fire protection and procedural arrangements observed at the time of this fire risk assessment, it is considered that the consequences for life safety in the event of fire would be:

Slight harm

Moderate harm

Extreme harm

In this context, a definition of the above terms is as follows:

**Slight harm:** Outbreak of fire unlikely to result in serious injury or death of any occupant beyond a flat of fire origin.

**Moderate harm:** Outbreak of fire could foreseeably result in injury (including serious injury) of one or more occupants, but is unlikely to result in multiple fatalities.

**Extreme harm:** Significant potential for serious injury or death of one or more occupants.

Accordingly, it is considered that the risk to life from fire at these premises is:

Trivial  Tolerable  Moderate  Substantial  Intolerable

Comments:

An explanation as to why the risk has been rated as shown above is given in the Executive Summary.

A suitable risk-based control plan should involve effort and urgency that is proportional to risk. The following risk-based control plan is based on one advocated in PAS 79:

Risk Level	Action and Timescale
<b>Trivial</b>	No action is required and no detailed records need be kept.
<b>Tolerable</b>	No major additional controls required. However, there might be a need for improvements that involve minor or limited cost.
<b>Moderate</b>	It is essential that efforts are made to reduce the risk. Risk reduction measures should be implemented within a defined time period.  Where moderate risk is associated with consequences that constitute extreme harm, further assessment might be required to establish more precisely the likelihood of harm as a basis for determining the priority for improved control measures.
<b>Substantial</b>	Considerable resources might have to be allocated to reduce the risk. If the building is unoccupied, it should not be occupied until the risk has been reduced. If the building is occupied, urgent action should be taken.
<b>Intolerable</b>	Building (or relevant area) should not be occupied until the risk is reduced.

**NOTE THAT, ALTHOUGH THE PURPOSE OF THIS SECTION IS TO PLACE THE FIRE RISK IN CONTEXT, THE ABOVE APPROACH TO RISK ASSESSMENT IS SUBJECTIVE AND FOR GUIDANCE ONLY. ALL HAZARDS AND DEFICIENCIES IDENTIFIED IN THIS REPORT SHOULD BE ADDRESSED BY IMPLEMENTING ALL RECOMMENDATIONS CONTAINED IN THE FOLLOWING ACTION PLAN. THE FIRE RISK ASSESSMENT SHOULD BE REPEATED REGULARLY.**

## ACTION PLAN

It is considered that the following actions should be implemented in order to reduce fire risk to, or maintain it at, the following level:

Trivial

Tolerable

### † Priorities:

1. Breach of legislation, having the potential for serious harm to relevant persons.
2. Breach of legislation, but not considered to constitute serious harm to relevant persons.
3. Necessary for best practice, but existing situation unlikely to constitute a potential for serious harm to relevant persons.

### †† Suggested Timescale:

- A. Immediately or as soon as reasonably practicable. In the case of items that require capital work, steps should be taken as soon as reasonably practicable to progress the work.
- B. Short term. In the case of items that require capital expenditure, steps should be taken in the short term to progress the work. (Suggested timeframe: within 3 months.)
- C. Medium term. (Suggested timeframe: within 6 months.)
- D. Long term. (E.g. at time of upgrading or refurbishment.)

*The full titles of British Standards and other references are given on the last pages of this report.*

Item	Report Section	Recommendation	Priority †	Time-scale ††
1.	8.3	As test records were not available for audit, confirmation should be sought that the fixed electrical installations in the common areas and tenants' flats are subject to inspection and test in accordance with the recommendations of BS 7671 and IET Guidance Note 3.	3	C
2.	10.3	Several of the disused rooms on the external deck area were not adequately secured to prevent unauthorised access. These rooms should be cleared of any combustible storage and waste and, thereafter, should be secured to prevent unauthorised access. If these rooms are no longer used and access is not required, consideration should be given to permanently sealing the access doors to these rooms.	3	B



Item	Report Section	Recommendation	Priority †	Time-scale ††
3.	14.3	The rear bin area is used to temporarily store larger items of furniture and goods awaiting collection for disposal. It should be ensured that these items are removed from site as soon as practicably possible, that any storage is kept to minimum and is not allowed to accumulate outside the building, close to the external walls.	3	B
4.	17.2	There is an external, high-level isolation valve fitted to the main gas supply. The wheel to the valve has been removed, presumably to prevent unauthorised persons from tampering with the supply and/or in accordance with gas safety regulations. However, this would prevent or delay the fire and rescue service from isolating the supply to the block in the event of a serious fire. Contact should be made with the gas supplier and the fire and rescue service, to ensure that suitable arrangements are put in place to enable the gas supply to be isolated in the event of a fire or emergency.	3	B
5.	17.2	The gas supply pipes and gas installation within the common corridors should be subject to inspection and test by a competent person, to confirm that the supply pipes and installation conform to the recommendations of Section 2.42 of Approved Document B for compliance with the Pipeline Safety Regulations 1996 and the Gas Safety (Installation and Use) Regulations 1998. Confirmation should also be sought that the gas installation is subject to maintenance and servicing in accordance with the Gas Act 1986, as amended by the Gas Act 1995. This forms part of the agreed interim measures pending the removal of the window panels.	2	B
6.	18.3	<p>The central core staircase is fitted with a natural smoke shaft, which vents to open air at roof level. It should be ensured that the vent into the shaft at the head of the staircase is permanently open, to allow any smoke in the staircase to vent into the shaft. On each of the other residential floor levels, metal access doors have been fitted to the smoke shaft, presumably to allow the fire and rescue service to vent smoke from different floor levels in the staircase.</p> <p>Discussions should be held with the fire and rescue service to determine whether they would need to open any, or all, of these doors in the event of a fire. If required by the fire and rescue service, the doors should be inspected to ensure that they are suitably secured, and are fitted with locking mechanisms that can be opened by the fire and rescue service on all relevant floors.</p> <p>Consideration should also be given to fitting additional security measures to the shaft, to prevent persons from accidentally falling into the shaft when any of the access doors are open.</p>	2	B

Item	Report Section	Recommendation	Priority †	Time-scale ††
7.	18.3	The common corridors to the flats are fitted with two permanently open vents for smoke control purposes. The internal mesh screens fitted to these vents should be removed as soon as practicably possible. This forms part of the agreed interim measures pending the removal of the window panels.	2	A
8.	18.3	The flat entrance doors to Flats 54, 65, 71, 77, 80, 83 and 102 are not fitted with external self-closing devices. If self-closing devices are not already fitted internally to these doors, as a matter of priority, the doors should be fitted with suitable self-closing devices. Ideally, the self-closing devices should be fitted externally. This forms part of the agreed interim measures pending the removal of the window panels.	2	A
9.	18.3	All other flat entrance doors, the doors to the staircase and doors to electric meter cupboards in the common corridors should be inspected, to ensure that the self-closing devices fitted close the doors effectively within their frames and, in the case of flat entrance doors, against the resistance of the latch. This forms part of the agreed interim measures pending the removal of the window panels.	2	A
10.	18.3	It was not possible to confirm, from a visual inspection, whether the flat entrance doors to Flats 3, 8, 61, 65, 67, 81 and 83 would provide, as a minimum, a notional 30 minutes' fire resistance. These doors should be inspected by a competent person and, if it is considered that the doors would not provide 30 minutes' fire resistance, the doors should be replaced with new FD30S doors.	2	A
11.	18.3	The frame around the entrance door to Flat 9 is damaged and should be repaired or replaced.	2	B
12.	18.3	The external letter plate in the entrance door to Flat 75 was missing and should be replaced.	2	B
13.	18.3	In the long term, or at the time of the next refurbishment, it is recommended that any notional fire-resisting, flat entrance doors, which are not already fitted with intumescent strips, smoke seals and protected letter boxes, should be upgraded by fitting such strips and seals, and protected letterboxes. Alternatively, the doors could be replaced with new FD30S doors.	3	D
14.	18.3	The fire-resisting doors between the bin room and the corridor leading to the staircase are fitted with intumescent strips, but not smoke seals. These doors should be upgraded by fitting cold smoke seals to the sides and top edges of the doors.	2	C
15.	18.3	One of the fire-resisting doors between the base of the staircase and the corridor leading to the bin room is damaged, and some of the beading around the glass panels is missing. The doors should	2	B

Item	Report Section	Recommendation	Priority †	Time-scale ††
		be repaired, and be upgraded by fitting cold smoke seals to the sides and top edges of the door, or, alternatively, the door could be replaced with a new FD30S self-closing door.		
16.	18.3	The fire-resisting doors between the base of the staircase and the entrance lobby have an excessive gap at their central meeting edges. The gap between the meeting edges should be reduced, such that the edges of the doors are in contact with the smoke seals fitted to the doors.	2	C
17.	18.3	The air brick fitted at high-level in the wall between the bin room and the corridor leading to the staircase on the ground floor should be infilled with materials providing a minimum 30 minutes' fire resistance.	2	C
18.	18.3	Several access doors to the service risers to the flats in the common corridors were open at the time of the survey. In addition, some of the locks fitted to the doors were broken and, on two floors, the doors to risers had been removed. All service riser access doors should be inspected, to ensure that the doors are in place, remain a good fit and are kept locked shut. This forms part of the agreed interim measures pending the removal of the window panels.	2	B
		It is understood that the residents of the flats were given individual access keys to these doors and LBHF does not have duplicate keys. Consideration should be given to changing the access arrangements to these service risers, to prevent the doors from being left open and/or damaged by residents. A lock fitted with a standard, budget key, common to all access doors, may be an option.	2	C
19.	19.3	It was not possible to confirm whether the gas supply pipework in the common corridors is adequately fire stopped where the pipework passes through the compartment floors. The openings in the floors should be inspected and, where necessary, be infilled with materials providing a fire resistance of 60 minutes.	2	C
20.	19.3	In a small number of the service riser shafts to the flats, there are openings in the walls between the flats and the shafts, following works carried out in the flats to install new pipework and services. All riser shafts should be inspected and any openings in walls, separating the flats from the riser shafts, should be infilled with fire-resisting materials to provide a minimum of 30 minutes' fire resistance.	2	B
21.	19.3	Inspection panels are fitted in the walls between the flats and the service riser shafts, and it was not possible to confirm whether all panels are adequately fire protected to restrict the passage of fire and smoke from a fire in a flat from passing into the service risers. The panels between the flats and	2	C

Item	Report Section	Recommendation	Priority †	Time-scale ††
		the service risers should be inspected, and, where necessary, upgraded or replaced with materials affording a minimum fire resistance of 30 minutes. The panels within the flats should be fixed shut.		
22.	19.3	The bathrooms and toilets within the flats are provided with mechanical extract ducts that extend vertically within the service riser and which discharge at roof level. There is potential for fire and smoke to spread between flats via these open ducts. Although this situation is not considered to present a significant risk, it is recommended that, in the long term, these extract ducts are fitted with intumescent grilles within the flats, to restrict the spread of fire and hot gases, unless it can be established that these are adequately designed as shunt ducts to minimize the potential for smoke spread between flats.	2	C
23.	19.3	It was not possible to confirm whether the openings into the original, common 'Se-duct' gas flues, in the kitchens in the individual flats, were adequately fire stopped to restrict the spread of fire and smoke when the original, gas warm-air heaters were removed. Confirmation should be sought that any openings into the vertical flues from flats have been adequately fire stopped and, if not, remedial works should be undertaken to ensure that adequate fire stopping is provided.	2	C
24.	19.3	The external, composite window panels should be replaced as soon as is reasonably practicable with alternative panels that, as a minimum, provide National product performance classification of Class 0 (in respect of surface spread of fire), and with an inner core of "limited combustibility", as defined in Approved Document B.	See comments in 19.3	
25.	21.2	The existing 'FIRE EXIT' signage, provided in the common corridor on the second floor, should be reviewed to ensure that the signs clearly indicate that residents/visitors need to re-enter the staircase to exit the block on the ground floor. Where necessary, additional 'FIRE EXIT' signs should be provided, to indicate the route into the staircase.	2	B
26.	21.2	Several of the existing floor number signs, provided on each floor level within the staircase, have faded. To assist the fire and rescue service, these number signs should be replaced with new signs that are clearly visible.	3	B
27.	21.2	Discussions should be held with the fire and rescue service regarding the information they would require to be held in the premises information box that is provided in the entrance foyer to the block. Generally, this would include simple layout plans of the block, the location of any isolation valves to the gas supply, the mains electrical intake room, the lift motor room, dry rising main outlets and any	2	B

Item	Report Section	Recommendation	Priority †	Time-scale ††
		other relevant information, which might include the location of any known vulnerable residents. Thereafter, the information box should be kept locked to prevent unauthorised access. This forms part of the agreed interim measures pending the removal of the window panels.		
28.	25.1	The fireman's lifts appear to be the original lifts installed at the time of construction and, at that time, would have been provided with a single power supply. If this is the case, and they have not been modified, consideration should be given to upgrading the lifts and the power supplies in accordance with the recommendations of BS 9999 and the requirements of BS EN 81-72 for fire-fighting lifts.	3	D
29.	26.3	LBHF has a draft generic fire safety policy document that incorporates fire safety arrangements in purpose-built blocks of flats. This document should be finalised and approved as soon as is reasonably practicable.	2	B
30.	26.4	It is recommended that tenants and leaseholders are provided with general fire safety information and advice. This could be provided on noticeboards, as part of the tenants' handbook or within specific newsletters. The information and advice should include: <ul style="list-style-type: none"> <li>• The action they should take in the event of a fire in their own flat, and in the common areas.</li> <li>• It should incorporate information on the 'stay put' policy, the procedures detailed in 26.4 and the means of summoning the fire and rescue service, including advice for vulnerable or disabled residents.</li> <li>• Residents should also be reminded to test their smoke alarms every week, to close all internal doors at night, and ensure that they have easy access to any keys needed to open flat entrance doors and any security grilles in the event of a fire.</li> </ul> <p>This forms part of the agreed interim measures pending the removal of the window panels.</p>	2	B
31.	28.3	Confirmation should be sought that the emergency escape lighting is subject to monthly and annual inspection and test. If this is not the case, the escape lighting should be inspected and tested in accordance with the requirements of BS 5266-8, and records maintained for audit purposes.	2	B
32.	28.4	The extinguishers provided in the lift motor room and tank room were out of service date and should be subject to inspection and test in accordance with the recommendations of BS 5306-3, and records maintained for audit purposes.	2	B

Item	Report Section	Recommendation	Priority †	Time-scale ††
33.	28.5	The rising main is subject to inspection and test by an external contractor. The date of last test was 21 <sup>st</sup> September 2016. However, although records indicate that the system passed this test and was fully operational, the test was limited to an air pressure test, due to limited access to certain floors following the fire, and a recommendation was included in the test report to carry out a water test. Therefore, the dry rising main should be subject to a further inspection and test as soon as practically possible. This forms part of the agreed interim measures pending the removal of the window panels.	2	B
34.	28.5	Confirmation should be sought that the fireman's lifts are subject to relevant inspections and test, which should include regular checks on the operation of the fire control switch fitted to the lifts for the use of the fire and rescue service. If this is not the case, periodic inspections and tests should be carried out in accordance with the recommendations of BS 9999, and records maintained for audit purposes.	2	B
35.	28.5	Confirmation should be sought that the lightning protection system is subject to annual inspection and test. If this is not the case, the system should be inspected and tested in accordance with the recommendations of BS EN 62305, and records maintained for audit purposes.	3	C

# REFERENCES

## **Guidance in Support of Fire Safety Legislation**

### England and Wales

HM Government Guides to Fire Safety Risk Assessment, DCLG:

- Offices and Shops.
- Factories and Warehouses.
- Sleeping Accommodation.
- Residential Care Premises.
- Educational Premises.
- Small and Medium Places of Assembly.
- Large Places of Assembly.
- Theatres, Cinemas and Similar Premises.
- Open Air Events and Venues.
- Healthcare Premises.
- Animal Premises and Stables.
- Transport Premises and Facilities.
- Means of Escape for Disabled People.

### Scotland

Scottish Government: Practical Fire Safety Guidance:

- Care Homes.
- Offices, Shops & Similar Premises.
- Factories & Storage Premises.
- Educational & Day Care for Children Premises.
- Small Bed & Breakfast & Self-Catering Premises.
- Small Premises Providing Sleeping Accommodation.
- Medium & Large Premises Providing Sleeping Accommodation.
- Transport Premises.
- Places of Entertainment and Assembly.
- Healthcare Premises.

### Northern Ireland

DHSSPS Sector Specific Guidance Documents:

- Sleeping Accommodation.
- Offices and Shops.
- Healthcare Premises.
- Theatres, Cinemas and Similar Premises.
- Small and Medium Places of Assembly.
- Open Air Events.

## **Guidance in Support of Building Regulations**

### England and Wales

Approved Document B Vol 2, 2006 edition (as amended).

### Scotland

Technical Handbook 2013, Non-Domestic – Fire.

### Northern Ireland

Technical Booklet E 2012.

## **Fire Safety Design and Management**

BS 9991: 2015. *(Incorporating corrigendum No. 1.) Fire safety in the design, management and use of residential buildings. Code of practice.*

BS 9999: 2017. *Fire safety in the design, management and use of buildings. Code of practice.*

## **Fire Detection and Fire Alarm Systems**

BS 5839-1: 2013. *Fire detection and fire alarm systems for buildings - Code of practice for design, installation, commissioning and maintenance of systems in non-domestic premises.*

BS 5839-6: 2013. *Fire detection and fire alarm systems for buildings - Code of practice for the design, installation, commissioning and maintenance of fire detection and fire alarm systems in domestic premises.*

BS 5839-8: 2013. *Fire detection and fire alarm systems for buildings - Code of practice for the design, installation, commissioning and maintenance of voice alarm systems.*

BS 5839-9: 2011. *Fire detection and fire alarm systems for buildings - Code of practice for the design, installation, commissioning and maintenance of emergency voice communication systems.*

### **Fire Extinguishing Appliances**

BS 5306-1: 2006. *Code of practice for fire extinguishing installations and equipment on premises - hose reels and foam inlets.*

BS 5306-3: 2009. *Fire extinguishing installations and equipment on premises - Code of practice for the commissioning and maintenance of portable fire extinguishers.*

BS 5306-8: 2012. *Fire extinguishing installations and equipment on premises - Selection and positioning of portable fire extinguishers - Code of practice.*

BS EN 3. *Portable fire extinguishers.*

BS EN 671-3: 2009. *Fixed fire-fighting systems. Hose systems. Maintenance of hose reels with semi-rigid hose and hose systems with lay-flat hose.*

BS EN 1869: 1997. *Fire blankets.*

### **Emergency Escape Lighting**

BS 5266-1: 2016. *Emergency lighting - Code of practice for the emergency lighting of premises.*

BS 5266-8: 2004. (BS EN 50172: 2004). *Emergency escape lighting systems.*

BS EN 1838: 2013. *Lighting applications – Emergency lighting.*

### **Fire Safety Signs**

BS 5499-4: 2013. *Safety signs. Code of practice for escape route signing.*

BS ISO 3864-1: 2011. *Graphical symbols. Safety colours and safety signs. Design principles for safety signs and safety markings.*

BS EN ISO 7010: 2012. *Graphical symbols. Safety colours and safety signs. Registered safety signs.*

BS 5499-10: 2014. *Guidance for the selection and use of safety signs and fire safety notices.*

### **Fixed Fire Extinguishing Systems and Equipment**

BS EN 12845: 2015. *Fixed fire-fighting systems. Automatic sprinkler systems. Design, installation and maintenance.*

BS 9990: 2015. *Non-automatic fire-fighting systems in buildings. Code of practice.*

### **Lightning**

BS EN 62305-1: 2011. *Protection against lightning. General principles.*

BS EN 62305-2: 2012. *Protection against lightning. Risk management.*

BS EN 62305-3: 2011. *Protection against lightning. Physical damage to structures and life hazard.*

BS EN 62305-4: 2011. (Incorporating corrigendum December 2016.) *Protection against lightning. Electrical and electronic systems within structures.*

### **Miscellaneous**

BS EN 81-72: 2015. *Safety rules for the construction and installation of lifts. Particular applications for passenger and goods passenger lifts. Firefighters lifts.*

BS 7176: 2007 + Amendment 1: 2011. *Specification for resistance to ignition of upholstered furniture for non-domestic seating by testing composites.*

BS 7273-4: 2015. *Code of practice for the operation of fire protection measures. Actuation of release mechanisms for doors.*

BS 7671: 2008 + A3: 2015. *Requirements for Electrical Installations. IET Wiring Regulations. Seventeenth Edition.*

BS 8899: 2016. *Improvement of fire-fighting and evacuation provisions in existing lifts. Code of practice.*

PAS 79: 2012. *Fire risk assessment - Guidance and a recommended methodology.*

### **Published Guidance on Control of Contractors**

Standard Fire Precautions for Contractors Engaged on Crown Works, Department of Environment, HMSO.

Fire Prevention on Construction Sites. Fire Protection Association.

Fire Safety in Construction. HSG168 (2nd edition) HSE.



## PHOTOGRAPHS

There are no photographs included in this report.

# BAFE SP205 CERTIFICATE OF CONFORMITY

Certificate Number	LS	0035642
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Life Safety Fire Risk Assessment  
Gold Approved Scheme  
CERTIFICATE OF CONFORMITY



This certificate is issued by the Approved Company named in Part 1 of the Schedule in respect of the fire risk assessment provided for the person(s) or organisation named in Part 2 of the Schedule at the premises and / or part of the premises identified in Part 3 of the schedule.

SCHEDULE	
Part 1	<b>NSI Life Safety Fire Risk Assessment Gold Approved Organisation</b>
	C.S. Todd & Associates Ltd.
	<b>BAFE Registration Number</b> NSI 00342
Part 2	<b>Name of Client</b> London Borough of Hammersmith and Fulham
Part 3	<b>Address of premises for which the fire risk assessment was carried out</b> Shepherd's Court, Shepherd's Bush Green, London W12 8PN
	<b>Part or parts of the premises to which the fire risk assessment applies</b> Common parts (see report for details).
Part 4	<b>Brief description of the scope and purpose of the fire risk assessment</b> The purpose of the fire risk assessment is to provide an assessment of the risk to life from fire, and, where appropriate, to make recommendations to ensure compliance with fire safety legislation. It does not address the risk to property or business continuity from fire.
Part 5	<b>Effective date of the fire risk assessment</b> 27 June 2017
Part 6	<b>Recommended date for review of the fire risk assessment</b> June 2018

We, being currently a NSI Approved BS EN ISO 9001 organisation in respect of fire risk assessment identified in the above schedule, certify that the fire risk assessment referred to in the above schedule complies with the Specification identified in the above schedule under the control of our Quality Management System (Identified on our NSI approval certificate) and with all other requirements as currently laid down within BAFE SP205 Scheme in respect of such fire risk assessment.

<b>Signed (for and on behalf of the issuing Approved organisation)</b>	<i>C S Todd</i>
<b>Job Title</b>	Managing Director
<b>Date</b>	09 August 2017

Life Safety Fire Risk Assessment Gold is an Approval Scheme of Insight Certification Ltd, Sentinel House, 5 Reform Road, Maidenhead, Berkshire, SL6 8BY

BAFE, Bridges 2, The Fire Service College, London Road, Moreton-in-Marsh, GL56 0RH.

RG8070.2 12/12 (Word 2007)

- 1 This certificate is used subject to NSI Regulations and Rules of the NSI LIFE SAFETY FIRE RISK ASSESSMENT GOLD Approval Scheme.
- 2 NSI reserves the right to conduct an audit by an authorised representative of NSI during normal business hours, with the permission of the customer, of the fire risk assessment and its related premises in order to ensure that the said risk assessment complies with BAFE Scheme document SP205-1 (the Scheme) Section 7 and generally.
- 3 NSI requires every NSI LIFE SAFETY FIRE RISK ASSESSMENT GOLD Approved Company to issue a Certificate of Conformity in accordance with the Scheme for all fire risk assessments it carries out that wholly or partly address life safety.
- 4 The Certificate of Conformity when completed is a clear statement that the Approved Company conducted the fire risk assessment for life safety, it is suitable and sufficient and compliant with the BAFE SP205-1 Scheme document and is certified by a registered competent fire risk assessor.
- 5 Where life safety and other aspects of fire protection are addressed in the same fire risk assessment a Certificate of Conformity shall be issued but the certificate shall make clear that the certificate applies only to the life safety aspects of the fire risk assessment and not further or otherwise.
- 6 Should the customer be dissatisfied with the fire risk assessment covered by this certificate, he/she should at first contact the Approved Company at its local office. If satisfaction is not obtained, the customer should address a written complaint to the customer services department at the head office of the Approved Company. If the customer remains dissatisfied, he/she may address a written complaint, outlining the nature of his/her dissatisfaction and the circumstances of the fire risk assessor company's response, to the Customer Care Manager at NSI.  
  
NSI will not normally consider complaints unless the Approved company has been given the opportunity to resolve the dispute as set out above.  
  
Subject thereto and as hereinafter provided, NSI will endeavour to assist in the resolution of the dispute between the contracting parties, provided always that NSI will not deal with or be involved in any discussions or negotiations with either party with regard to financial or other loss, claims or potential loss claims, outstanding payments or construction and/or interpretation of the Approved Company's terms and conditions of contract.  
  
NSI shall not be liable for any act or omission arising from any assistance it may provide as hereinbefore provided unless such act or omission is shown to have been fraudulent or deceitful.
- 7 This Certificate confirms conformity with the requirements of BAFE Scheme document SP205-1 applicable at the date of issue by the issuing company. NSI does not undertake to investigate any query or complaint in relation to future changes to BAFE scheme documents, policies or other regulations that render the fire risk assessment in need of further updating. In that event, the appropriate update should be carried out by a company holding NSI LIFE SAFETY FIRE RISK ASSESSMENT Approval.
- 8 NSI does not accept any responsibility or liability for any fire risk assessment produced by the Approved Company
- 9 Unless the issuing company's obligation to NSI in respect of the fire risk assessment are undertaken by another NSI Approved Company, NSI will not enforce its Rules or Standards on the Approved Company or on its successor in business in respect of any fire risk assessments after the issuing company ceases to hold NSI LIFE SAFETY FIRE RISK ASSESSMENT Approval.
- 10 The Certificate is issued subject to the terms and conditions of the company issuing the certificate for the fire risk assessment service.
- 11 On this certificate and in these terms and conditions, where the context permits, the reference to the issuing company shall include any Approved Company who shall undertake the issuing company's obligations to NSI in respect of the fire risk assessment.

Footnote.

\*SP205\* is a Scheme Document published by the British Approvals for Fire Equipment (BAFE).

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