



Report title

Structural Fire Safety in New and Refurbished Buildings

Meeting

Strategy Committee

Date

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Report by

Deputy Commissioner

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Summary

This report is about work undertaken by officers to address concerns about the installation and protection of structural fire safety solutions in buildings. The work has focussed particularly on those buildings that have been the subject of works since construction, but some of the main issues which arise could apply equally to newly constructed buildings. The issues are capable of applying to even very small buildings and projects. The work has arisen as a consequence of the Lakanal House fire and inquest and was requested by the Member-led Lakanal House Working Group.

Recommendations

1. That the work undertaken by officers to address concerns about the installation and protection of structural fire safety solutions in buildings be noted.
2. That it be agreed that officers undertake more work to refine the audit tool and to recommend its use as a self assessment tool to London local authorities and other bodies as appropriate. It is proposed to add to the recommendation (to local authorities) that it would be desirable if Members were informed, first that the audit tool will be routinely used and secondly that they will be informed on a regular basis of issues arising that have potentially important implications for the local authority and for the general public. This should help ensure that the results of audits inform decision-making at an appropriate level.
3. In light of the Brigade's evidence about failures in fire stopping/compartimentation, in parallel to dissemination of the audit tool, that all London local authorities be recommended that all contractors and sub-contractors appointed by them to undertake building projects should be able to demonstrate contemporary training and competence in the importance of fire stopping.

4. That officers should examine opportunities to take forward a wider focus on the issues raised in the report.

Introduction/Background

1. Following the fire at Lakanal House in Southwark in July 2009 there has been a greater degree of scrutiny of the arrangements in place for protecting the fire safety precautions of a building, especially if that building has been refurbished or the subject of maintenance or other improvement works. In addition to Lakanal House, there have also been other less high profile fire incidents in residential blocks (and other types of premises) which have revealed breaches of fire safety design.
2. Under the guidance of the Member-led Lakanal House Working Group, officers have been taking forward a wide programme of activities to achieve wider understanding of the potential risks of refurbishment and maintenance works; to pilot a potential audit tool which could be made available for others to use and, in a very practical way, to work with others to identify risks and opportunities.

Building Research Establishment – dissemination of lessons learnt

3. One of the initiatives of the last 9 months has been to facilitate the dissemination of the lessons to be learnt from the Buildings Research Establishment (BRE) assessment of the changes made to Lakanal House and their impact.
4. Brigade officers have made arrangements so that the BRE presentation could be made to a wide number of interested parties, including Local Authority Building Control officers; our own Deputy Assistant Commissioners and Borough Commanders; relevant Brigade fire safety officers; Members of the Authority and external guests (although take up from the latter has been poor).
5. These presentations have given rise to a very good quality debate and the learning provided by the presentations has been considerable. It is appropriate to place on record our thanks to David Crowder of the BRE who has put a lot of time into repeating this very valuable presentation.
6. Subsequently, a number of the Borough Commanders have reported back on some of the activities in their own patch and a couple of these are worthy of mention.
7. In Barking and Dagenham, the Borough Commander delivered a presentation to the local authority on the Lakanal House and Shirley Towers fires. The presentation focused on the effects building maintenance and upgrade work can have on fires in property and upon firefighting. One of the outcomes of this presentation was that the Borough Commander asked the Council to survey all of their low and high rise properties to ensure that the appropriate fire stopping had been maintained following refurbishment and modernisation. The outcome was two premises (one high rise and one low rise) were found to have inadequate fire stopping between units. These issues were immediately recorded on the Operational Risk Database so any crews attending would be aware of potential fire spread. The Council also acted swiftly to remedy the defects.
8. In Brent, Brent Housing Partnership (BHP) undertook a cold smoke study in an unoccupied high rise block. They studied two flats - one with no fire protection and one with a range of fire stopping, door strips and fire and smoke protection measures - and compared smoke travel within the flats. They also undertook a similar study to examine smoke travel in the stairwells. They used this information to support their understanding and refurbishment activities during

their £80m refurbishment programme on their housing stock. The work that BHP undertook was impressive and thorough and represents a model of good practice from which others could learn. In addition to the cold smoke tests, BHP also undertook fire tests on a sample of their property front doors for fire resistance and structural integrity tests. BHP are also working with the Borough Commander so that their next available High Rise block will be made available to host a High Rise fire survival guidance incident (12P high rise fire), planned for later this year or early next year. This exercise is being planned to incorporate Control, station personnel, CU crews, Brent LALO, BHP, Media and Command officers.

Building control issues and concerns

9. In big picture terms, whether building control is effective, well funded or potentially harmed by competition is well beyond the scope of this work. However, in the recent "lessons learnt" presentations and meetings, regularly expressed themes have included:
- In house teams are under-resourced
 - The price levied by in-house services is too low to properly deliver the function
 - The fact that there is competition puts pressure into the system, by potentially diminishing rigour in an effort to win work¹. Some in-house teams express fear that their own council colleague project officers could choose other providers
 - Projects are signed off before they should be because of pressure for schemes to be completed
10. Some of these comments might not survive serious scrutiny. Some were made by provider interests, although the comment about schemes signed off prematurely came from a housing provider at the Brigade's High Rise Forum. At that same High Rise Forum, comments from a speaker from LABC (the trade association for building control) seemed to echo what we had heard elsewhere. Balanced against these comments, the Chair of the London Councils Housing Directors Fire Safety Group expressed his concern at what he had heard. He said that he didn't recognise these comments and he felt that no Council in London would condone this picture.
11. The organisation Local Authority Building Control is sensitive to concern about the operation of the function. In 2012, they conducted their own survey of compliance activity, in the light of: "...commentators and organisations with their own commercial agendas (who) are always using ad hoc anecdotes to say that enforcement isn't happening²". Their survey results demonstrated a busy level of building control activity, based on the evidence they collected about the volume of interventions made by building control officers over a specified period. It was suggested that this high level of informal interventions explained the relative rarity of formal enforcement actions, including prosecutions. Interestingly, fire safety was the second most commonly cited of the fourteen topics covered by building control interventions (being very closely behind structural issues as the main topic).

¹ This was a theme in DCLG consultation on the future of building control, in 2012, when DCLG reported that respondents had said that "competition between local authority building control and Approved Inspectors leading to lower standards was a recurring theme, linked to the perceived conflict of interest between local authorities' commercial activities and their enforcement role".

² The survey took place with the backdrop of a Ministerial challenge for the production of evidence that building control works adds value and isn't an unnecessary cost burden on industry or tax payers.

12. In addition to generalised comments about how things work, the Brigade collects its own specific examples and evidence and has recently put in place arrangements to seek responses from building control bodies about actions they have taken in response to failures notified to them. These failures are typically identified as a consequence of fires, which then draw a post fire audit. Appendix 3 provides some contemporary pen pictures. Obviously, one key purpose of the audit tool is to try to improve the proportion of such failures that are identified and remedied before any fire occurs.
13. The Brigade has previous experience of concern about the efficacy of building control. In 2006, three residential blocks were constructed in Woolwich by Countryside Properties. NHBC Building Control Services were instructed to act as the Approved Inspector for the purposes of the Building Regulations.
14. In February 2007, a fire started in the basement car park of one of the blocks and spread via ceiling cables into the service shaft, which travelled vertically throughout the building from the basement to the 5th floor, passing through the common corridors on each floor. There were defects in the construction of that shaft. Most significantly, the shaft ended at the underside of the false ceiling in the corridor on each level, rather than the underside of the solid ceiling, leaving a large gap from where smoke and other products of combustion escaped into the common corridors. The common corridors formed part of the means of escape and led to a single protected staircase, a number of which became smoke logged and impassable. Six appliances attended and three residents had to be rescued by an aerial appliance. It was the view of the officers concerned that the failings within the shaft were capable of easy identification by either lifting up the false ceiling next to the shaft on any level, or by opening the inspection doors next to the shaft and looking into it.
15. The Brigade brought legal proceedings and in July 2009 Countryside Properties entered a guilty plea to one offence under the Regulatory Reform (Fire Safety) Order 2005. Proceedings were also brought against NHBC Building Control Services under Article 32(10), which provides that "where the commission by any person of an offence under this Order, is due to the act or default of some other person, that other person is guilty of the offence, and a person may be charged with and convicted of the offence by virtue of this paragraph whether or not proceedings are taken against the first named person."
16. The case against NHBC, in simple terms, was that the inadequate fire protection and fire stopping in the construction of the shaft by Countryside was attributable to NHBC's failure to carry out their obligations as an Approved Inspector. In other words, they had committed an offence under Article 32(10) by failing to exercise reasonable care and skill, as they are required to do, in carrying out inspections.
17. While the Judge ruled that the fact that there is a separate regime for the regulation of Approved Inspectors is no bar to the RRO applying and that a Jury could find that by failing to carry out a proper regime of inspections NHBC made it more likely that there would be failures in Countryside's construction, he did not accept that was enough by itself to establish that NHBC caused Countryside to commit an offence. Further, he ruled that the RRO applies to buildings in use as opposed to pre occupation. So the prosecutions failed on a technicality. Leading Counsel's advice was not to seek leave to appeal. While it was believed that there was evidence that Countryside had relied on the defendant's advice so as to cause the failure to take the relevant fire precautions, it was unlikely that the Judge fell into sufficient error for an appeal to succeed. Even if it did, NHBC would eventually be sentenced in light of the fine imposed upon

Countryside Properties, who pleaded guilty in the Magistrates Court. Their fine was £4,000 and it is unlikely that NHBC's fine would be significantly higher.

Fire safety in refurbished buildings – audit

18. As part of the package of measures emerging from the Lakanal House Working Group a piece of work was commissioned to examine whether those who take decisions about building and maintenance works can feel confident that those works have been designed and delivered in a way that at least maintains the fire safety integrity of the building.
19. Officers set out to design an audit tool for use by local authorities or housing providers, to seek assurance on the efficacy of all key stages of their building maintenance and refurbishment programme in relation to fire safety precautions. The audit tool covers three areas:
 - Governance and assurance
 - Process and policy
 - Practical assessment and risk
20. The principle of the audit tool is that it can be used flexibly at all three of these levels to provide an indication of the level of compliance (and any residual risk) associated with any refurbishment or maintenance programme on a building, which can then be addressed through existing processes, including consultation and advice from London Fire Brigade to ensure the building meets expected standards of fire safety.
21. The tool is designed as a desk-top audit that should be completed by officers to provide a consistent level of assurance against a refurbishment project, but can be employed at any level depending on existing levels of fire safety assurance. The outcomes of the audit should not only address any issues with the building itself but also inform future policy and governance arrangements around commissioning and supervision of relevant programmes, thus reducing the risk of a major fire safety failure and the consequent reputational and financial damage. In the local authority context, it would be desirable if Members were informed, first that the audit tool will be routinely used and secondly that they will be informed on a regular basis of issues arising that have potentially important implications for the local authority and for the general public. This should help ensure that the results of audits inform decision-making at an appropriate level.

The pilot

22. The pilot phase was carried out with the assistance of four London local authorities. Each chose up to three buildings on which to carry out the survey and assess their fire safety integrity during or after the refurbishment or maintenance phase. They then provided an example of the actual audit results as well as feedback on the usefulness and suitability of the system and suggestions for improvement.
23. The first authority completed three audits in respect of residential schemes, one of which was shared with brigade officers. They chose to give the responsibility of completing the audit to the Major Works Team Project Manager and Lead Designer for each of the projects. The completed audits were then forwarded to the Head of Maintenance and Compliance for checking. The authority's officers felt that it was unnecessary to provide the questions directly to elected Members but recognised that, given the level of the questions and the relevance of the outcomes, the results of the audit could provide the basis for a Members level report. It was also

stressed by this authority's officers that they felt that they had an existing obligation to report fire safety issues to Members, and that this obligation was already met in practice.

24. Overall, this authority appear to place heavy reliance upon the professional competence and experience of the design and build teams involved in their project and upon the efficacy of the building control process.
25. The second authority used the process to audit the £1.5 million refurbishment of an important public building. They used the tool in two stages: first the Corporate Building Services Manager used part 1 Governance and Assurance to consider the departmental arrangements for projects; and secondly parts 2 and 3 were given to a Senior Building Surveyor to check compliance specific to the project. Overall they reported that they found the exercise very useful, providing the opportunity to review and reflect on current arrangements and how they deal with fire safety risks in terms larger refurbishment projects. Specifically, whilst the audit did not identify any immediate gaps it did highlight a lack of consultation with the fire brigade which is now being addressed and improved to build better local relationships with the fire safety team.
26. As a result of the audit, they stated that it provided reassurance that they have a robust process in place to reduce the risk of compromising fire safety as a result of major refurbishment projects being undertaken in buildings.
27. The third local authority used the audit tool on two projects (both small 'operational' buildings, not generally used by the public) and the audit outcome for one of those projects was shared with Brigade officers. The audit was overseen by the Property Services Contract Building Manager in conjunction with the project surveyor. In particular, the project surveyor expressed a preference for a revised audit tool which would provide a summary at the beginning for objectives, reference documents, conclusion, risk rating and recommendations, bringing together the results of the questionnaire and enabling "a quick processing of the facts". The same surveyor felt that Parts 2 & 3 of the survey tool are pertinent to the consultant responsible for the scheme. It was therefore suggested that it maybe useful to consider that the questions are directed to them while the scheme is being undertaken to ensure both the requirements are undertaken and that they are recorded for later use. Finally, the surveyor suggested that the tool does not focus adequately on workmanship and whether the actual works conform to provide 'fire safety' integrity.
28. The fourth authority intend to adopt the draft audit process to assist in governance and scrutiny of their fire safety risk management. In the first instance they have given the audit to the Director of Property Services for their arms length housing agency, who presented it to the core group of stakeholders for major projects. The process was positively received and will be tested on two sites over the coming weeks.

Risk Rating Matrix

29. When we began this project, the audit tool was designed without an upfront plan for how to report outcomes. We have since given this consideration and suggest that a useful addition to the audit tool would be a bespoke risk matrix against which outcomes could be assessed. The matrix at Appendix 2 is designed to provide an overall outcome for the audit using risk ratings High, Medium and Low with criteria and recommendations included on the table to assist in deciding an appropriate action plan based on the results of the process. There was feedback from one authority that the matrix should include a 'no risk' rating, but it is felt that given the complexity of the process and policies involved in building refurbishment that it is unlikely that such a score would ever be reasonably achieved.

Conclusions

30. This has turned out to be a very worthwhile piece of work and it has shone a light on some important issues.
31. First, there is an appetite for more knowledge and better performance, certainly amongst the converted. Our Borough Commanders were energised by David Crowder's analysis and we have seen some good work in the boroughs. Numerous housing providers have also been self-motivated to learn the lessons that are there for all and have undertaken their own good work.
32. Secondly, the audit tool does seem to have demonstrated valuable potential as an assurance tool. Going forward, officers propose that we do a little more work on the audit tool to refine it; that we add the risk matrix and that we then recommend it to London local authorities as something for their consideration. It is a matter for individual authorities to decide whether or not to invest in this kind of audit work, but we would say that we believe it to be worthwhile based on the feedback from our pilots and taking into account our wider evidence of building failure.
33. Thirdly, it is clear that local authorities (quite reasonably) rely upon a combination of design, specification, construction proficiency and effective building control as crucial control and assurance mechanisms, but the Brigade has accumulated evidence, as represented by the pen pictures in Appendix 3 that not all of these components are reliably effective. By the time some of the consequential failures arise, building control bodies appear not to have powers to act. This is of concern. London is a rapidly expanding City and it is self evidently vital that the quality and safety of new buildings is sound.
34. Formal enforcement action under the building regulations, known as a s36 notice, must be started within a year of the non-compliant building work. After that only an expensive and time consuming application for a court order is possible, with no guarantee of enforcement being approved even where a breach can be shown. In any case, a building control authority has only 2 years from the date that the deficient building work is completed to bring a prosecution for a breach of building regulations. It might be that the breach is only apparent at a much later date. Also, even a serious breach of building regulations that causes a significant life risk is currently subject only to a sentence of a small fine of no more than £5,000 per breach i.e. a Level 5 fine. (The recent announcement of the lifting of the limit on Level 5 fines will resolve this, but the perception of building regulation breaches as a fairly minor offence may persist). The Regulatory Reform (Fire Safety) Order 2005, enforced by fire authorities, has no absolute time limitations. Consequently fire authorities might use fire safety regulations to prosecute matters that either can no longer be prosecuted as building regulations cases or where the sentence would not reflect the seriousness of the case.
35. At least one London Council has investigated the potential for information sharing about contractor performance, but it appears to be an area where there are strict compliance rules to be taken into account. Southwark Council investigated setting up a formal network with other London Councils to share information regarding the performance of construction contractors. Their conclusion was that in larger projects (over EU threshold of £ 4.3m) a quality evaluation must be undertaken which requires each applicant to be treated equally and scored in a consistent, non discriminatory and fair manner. At Pre-Qualification Questionnaire (PQQ) stage this must be done only on the information contained in the PQQ returns (with the exception of objective information which has been obtained, e.g. an external credit report). References can be requested at this stage; however any other information received by any means including personal knowledge or experience of the applicant cannot be taken into account (this being so, Southwark

concluded that the best way to secure good performance from a contractor is to have effective contract management and monitoring arrangements in place). Since Southwark concluded their consideration on this point, new EU procurement law expected later this year is anticipated to allow for authorities to block bids from contractors guilty of past poor performance, but only if the poor performance related to that particular authority. A welcome, if modest, step forward.

Head of Legal and Democratic Services comments

36. Part B of Schedule 1 to the Building Regulations 2010 as amended deals with fire safety. Amongst other things, there are requirements for a building covered by the Regulations:-
- (a) To be designed and constructed so that there are appropriate provisions for early warning of fire and appropriate means of escape.
 - (b) To have internal linings to inhibit the spread of fire.
 - (c) To be designed and constructed so that its stability will be maintained for a reasonable period in the event of a fire and with measures to inhibit the spread of fire.
 - (d) To have external walls and roof that adequately resist the spread of fire from one building to another.
 - (e) To be designed and constructed so as to provide reasonable facilities to assist firefighters in the protection of life.
37. The Building (Approved Inspectors etc.) Regulations 2010 as amended imposes requirements upon an Approved Inspector to consult with the Fire and Rescue Authority where an initial notice is to be given or has been given in relation to the erection, extension or material alteration of a relevant building or in relation to building work in connection with a relevant change of use of a building and Part B of Schedule 1 to the Building Regulations 2010 as amended imposes requirements in relation to the work.

Director of Finance and Contractual Services comments

36. The Director of Finance and Contractual Services has reviewed this report and has no comments.

Environmental Implications

37. None specifically arise.

Staff Side Consultations Undertaken

38. None required.

Equalities Implications

39. None.

List of Appendices to this report:

1. Fire safety in refurbished buildings – audit tool
 2. Fire safety in refurbished buildings – audit tool - risk matrix
 3. Case studies of failure of fire engineered solutions
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LOCAL GOVERNMENT (ACCESS TO INFORMATION) ACT 1985	
List of background documents None	
Proper officer	Deputy Commissioner
Contact officer	Rita Dexter
Telephone	020 8555 1200 x 30021
Email	rita.dexter@london-fire.gov.uk

Fire safety in refurbished buildings – audit tool

<p>Part 1: Governance focus and arrangements: In this part, we are interested in the questions elected Members should ask in order that they can be confident that projects are well planned and executed (in terms of fire engineering and protection)</p>	
<p>Have members of the Authority explicitly stated that, as a matter of policy, the onus is on officers to work out a proper process to ensure that any works which might impact upon the fire safety features of the block are properly considered and managed (including engagement of all relevant departments)?</p>	
<p>Have members specified the way in which they would wish to be assured that the correct professional advice has been taken and acted upon?</p>	
<p>Will the works in question, if completed competently, result in a building which is no less fire safety compliant than it was before the works?</p>	
<p>Can officers confirm that, once the works are completed, the building will meet all of the necessary fire safety requirements?</p>	

Part 2: Involving appropriate professional disciplines: in this part we are interested in whether there is a common understanding of the professional disciplines that need to advise on any given project (refurbishment or maintenance) and whether those understandings are applied in practice.

Describe the arrangements that are in place for ensuring appropriate consultation with relevant disciplines (which might be provided by in house staff, or by external commercial suppliers).	
Was building control consent sought for this work? If not, how was it established that it was not required and is there a record of that consideration?	
Which officer (role) applied for building control consent?	
What were the arrangements to consult London Fire Brigade on any works that could impact on the fire precautions of the building (including those works that do not require a statutory consultation to LFB)? If London Fire Brigade provided advice, is there evidence that the advice given was acted upon and how is this recorded?	

Part 3: Understanding the initiatives which might affect or disturb the fire safety protection features of a building. It seems more than possible that there are various categories of works (including low level maintenance works) that might compromise the fire safety protection features of a building. These will not always be immediately obvious.	
Prior to carrying out the project, what assessment was made of the impact of these works on the fire precautions of the premises? This should also include any impact on firefighting operations.	
Is the name of the person making the assessment recorded and what assessment was made that they are suitably qualified to have made such an assessment?	
How did officers ensure that before, during and after the project the fire precautions were not compromised?	
Specifically, how did officers guard against individual design failures?	
How did officers guard against accumulated actions which might produce fire safety failures?	
How did officers guard against the use of incorrect materials?	
How did officers ensure that all installers and products were third party approved?	
How did officers ensure that no materials that might contribute to a fire were used?	
How did officers guard generally against improvements which could compromise the fire safety features of the building?	
Did officers consider whether the project also provided an opportunity to examine fire stopping and compartmentation in the building?	
How did officers ensure that the persons contracted to carry out such works were suitably competent? Did you apply the same consideration to any sub-contractors?	

In planning the project, do you know whether the Fire Protection Association's Design Guide for the fire Protection of Buildings (or any other similar guidance) was used?	
When the project was complete, was a (new) fire risk assessment undertaken?	

Fire safety in refurbished buildings – audit tool - risk matrix

Risk Rating	Criteria	Recommendations
HIGH	<p>Weaknesses in or lack of policy and procedures and evidence that fire safety breaches could occur through:</p> <ul style="list-style-type: none"> • lack of consultation with other stakeholders • Lack of appropriate inspections • Lack of training/ understanding/ briefing about the existing fire safety arrangements in the building by contractors, staff, subcontractors. • Lack of sufficient management control of contractors, staff, subcontractors. • Compensatory fire prevention and protection measures not incorporated to maintain general fire precautions during works affecting existing measures. 	<p>Full review of projects and decision on suitability of existing processes to control/inspect projects during refurbishment phase.</p> <p>Review risk assessment and significant processes and ensure competent persons carry out any of the preventive and protective measures needed.</p> <p>Ensure all significant findings are identified, recorded and addressed</p>
MEDIUM	<p>Weaknesses in or lack of policy and procedures and evidence that fire safety breaches could occur through:</p> <ul style="list-style-type: none"> • lack of consultation with other stakeholders • Lack of appropriate inspections • Lack of training, understanding or briefing about the existing fire safety arrangements in the building by contractors, staff, subcontractors. • Lack of sufficient management control of contractors, staff, subcontractors. • Compensatory fire prevention and protection measures not incorporated to maintain general fire precautions during works affecting existing measures. 	<p>Full review of projects and decision on suitability of existing processes to control/inspect projects during refurbishment phase.</p> <p>Review risk assessment and significant processes and ensure competent persons carry out any of the preventive and protective measures needed.</p> <p>Ensure all significant findings are identified, recorded and addressed</p>
LOW	<p>There are sound policy and inspection arrangements in place and evidence that all critical elements of the general and structural fire precautions are maintained during and after the refurbishment.</p>	<p>Maintain and review.</p>

Case studies of failure of fire engineered solutions

Plumstead

This case was discovered post fire following a fatal fire. The building is a purpose built 3 storey block of flats, circa 1967.

Compartmentation failures were due to breaches by pipework following alterations to the premises. This has been raised with local building control but because of the time lapse they stated they were unable to enforce. LFB has addressed this via the fire risk assessment and issued a notification of deficiencies.

Catford

This case was discovered post fire. The building is a house of two floors, with several extensions, used as a residential care home.

Compartmentation failures were due to air vents not being installed correctly which allowed the passage of smoke and hot gases to spread to the first floor corridor. LFB has addressed this via the fire risk assessment and issued a notification of deficiencies. This case is still currently being investigated by LFB Enforcement team.

Romford

This case was discovered during a programmed inspection. The building is a unit in a large shopping centre circa 1970. Compartmentation failures were due to changes following a refit. This was the omission of a fire shutter which separates the unit thus protecting the remainder of the centre. Approved Inspector had signed off changes as satisfactory. LFB are working with local authority building control to get the shutter reinstated (or other appropriate means of protecting the premises).

Gants Hill

This case was discovered during an inspection which had been requested by the new managing agents as they had serious concerns. The building is one of 3 that are 9 storey purpose built blocks of flats circa 2008. Compartmentation failures and fire safety system failures are due to the premises not being built as per the fire strategy. The

deficiencies include dry risers in the wrong place, automatic opening smoke vents not correctly fitted, missing cross corridor doors and unventilated lobbies. LFB are working with managing agents and local building control to rectify these issues.

Shoreditch

This case was discovered post fire. The building is a 6 storey purpose built block of flats circa 2009. Compartmentation failures were due to building not being built as plans submitted. Extract fan shaft was not fitted with dampers which allowed the passage of smoke and hot gases to spread to several other flats. LFB are working with social landlord and local building control to rectify these issues.

Drayton Park

This case was discovered via a complaint from a resident. The building is 12 storey purpose built blocks of flats circa 2010. Failure identified as breaches in compartmentation by services between the flats and common corridors at high level not been fire stopped during build. LFB served an Enforcement Notice.

Hackney

This case was discovered via a complaint from a resident. Building is now a 12 storey blocks of flats circa 2010 following a 6 storey timber framed extension. Compartmentation failure was so serious between flats and common corridors it was only the fact it had residential sprinklers that a Prohibition Notice was not served. LFB worked with the social landlord to rectify issues. The Social landlord is also in dialogue with builder under NHBC warranty.