

2 October 2018

ITEM: 5

Housing Overview & Scrutiny Committee

Update on Fire Safety Measures Including a Review of Fire Suppressant (Sprinkler) Systems

Report of: Richard Birchett, Interim Assistant Director Housing

Wards and communities affected:

All

Key Decision:

Key

Accountable Head of Service: Richard Birchett, Interim Assistant Director Housing

Accountable Director: Roger Harris, Corporate Director, Adults, Housing & Health

This report is Public

Purpose of Report: To update Scrutiny Committee on fire safety measures in place across the Borough and review the retrospective fitting of fire suppressant (sprinkler) systems

EXECUTIVE SUMMARY

This report updates members on fire safety measures undertaken by the council and addresses the question of retrospective installation of sprinklers in the council's 15 high-rise blocks.

1. RECOMMENDATIONS:

- 1.1 The Committee is asked to comment on the contents of the report and the ongoing fire safety work undertaken by the housing service to ensure all council rented properties are safe.**

2. INTRODUCTION AND BACKGROUND:

- 2.1 The Grenfell Tower tragedy in June 2017 highlighted the importance of fire safety in residential dwellings. As a result of the fire the council brought forward the programmed inspection of every high-rise dwelling in the Borough by 12 months and every high-rise block was inspected by the in-house team, an external fire safety consultant and Essex County Fire & Rescue Service (ECFRS) by August 2017. Where any safety critical issues were identified they were addressed immediately and a programme of ongoing improvements worked up and implemented. Planned work included installing smoke and heat detectors in every flat, compartmentation in individual flats and service ducts and compliance work on front doors to ensure fire resistance is maintained, for example replacing letter boxes, lock escutcheons and door

closers. Leaseholders who have fitted non-compliant front doors have been instructed to replace them. The council will assist leaseholders who cannot undertake the work themselves.

- 2.2 The council has provided detailed advice to all householders on fire safety measures and placed information in all communal areas advising residents and visitors of what action to take in the event of a fire in the block. The council has advised all residents that personal possessions must not be stored in any communal area, including the drying areas on the landings of each block. Where items are left in communal areas they are removed, temporarily stored and then disposed of.
- 2.3 There are 12 high-rise blocks that have been externally clad to aid thermal efficiency. The cladding is not the same type of material used on Grenfell Tower however, to ensure we are effectively risk assessing our tower blocks and the materials included in their construction we are undertaking extra assessments of our blocks of which includes material sampling and a review of the installation method. In addition the council has not modified the high-rise blocks or changed any of the internal architecture and thereby has maintained the integrity of the fire safety measures designed into the building. This includes the compartmentation approach to fire safety – i.e. occupants are advised to remain in their flats if there is a fire in another flat in the block as the structure of the building is designed to contain the fire in that area. This has been evidenced by the fire in George Tilbury House in June this year where the fire was contained to the flat and ECFRS advised occupants to return to or to stay in their flats whilst they tackled the fire.
- 2.4 In the wake of the Grenfell Tower tragedy the government commissioned extensive testing of commercial fire doors and a number of door types were identified as failing a standard 30 minute test. The council does not have any of these types of fire doors fitted to any dwelling in the high-rise blocks. The council has a total of 56 Masterdor and 682 Permador models across our stock. In July this year the government commissioned further testing of fire doors including testing fire resistance on both sides of the door. Up until this point standard testing had been to measure resistance on the internal side of the door to a fire on the external side of the door. The testing commissioned in July measured the inner leaf's resistance to fire from a fire on the inner side. The majority of fire doors manufactured in or supplied to the UK failed this revised testing regime.
- 2.5 As a result of the majority of doors failing the revised test all manufacture of fire safety doors in the UK was halted pending further guidance from the government. The company that fitted the Masterdor doors has not provided the council with the data from this new testing. Permador have supplied the council with their testing data and evidenced that a solid door (i.e. one without a glazing panel) exceeded the 30 minute test on both sides of the door. For doors with a glazing panel when the fire was on the inner side of the door the inner glazing leaf failed after approximately 20 minutes. At the time of preparing this report no further guidance had been received from government and fire door manufacture is still suspended. Until such time as guidance has been received from the government the council will be unable to agree a course of action regarding the fire doors currently fitted to homes in our stock

where door including glazing has been fitted. We will continue to seek clarification for the door manufactures in relation to the certification of the doors and take any appropriate action necessary.

- 2.6 Fire suppressant or sprinkler systems can play a vital part in fire safety in any building and installing them became mandatory for all high-rise residential buildings over 30 metres in height built in England after 2007. Building Regulations, however, are not retrospective and therefore it is not a regulatory requirement to retrospectively fit them into the fifteen tower blocks in the Borough.
- 2.7 It is important to note that whilst sprinkler systems can play a large part in suppressing the ignition and spread of a fire the safety of the occupants and integrity of the building itself are dependent on the fire compartmentation measures in place. The compartmentation measures are designed and maintained through the lifecycle of the building to ensure that any fire is contained within a specific area. Compartmentation works on the principal that the safest place in the event of a fire in another flat in a high-rise block is the flat you currently occupy. This is because the buildings themselves are specifically designed to contain fire and prevent it spreading. The recent fire at George Tilbury House in Chadwell illustrates how compartmentation works and the Essex County Fire & Rescue Service actively encouraged tenants to return to their flats while they tackled the fire. The rapid spread of fire at Grenfell Tower was in part due to the cosmetic and structural changes made to the building. No such changes have been made to any of the council's 15 high-rise blocks.
- 2.8 There are sprinkler systems in the bin rooms on the ground floor of each high-rise block where the bin chute terminates into a large "Eurobin". The sprinkler systems are fitted at these locations because these areas represent the greatest area of risk in relation to sources of ignition and combustible materials. The sprinkler system works in conjunction with the hoppers that are located at the bottom of the bin chute and on each floor in the bin rooms. Each hopper also has fire and smoke seals fitted to ensure any fire in the bin room does not allow heat or smoke to enter the main structure of the building.
- 2.9 The fire at George Tilbury House on 26 June illustrated the effectiveness of the fire safety measures designed into the building, the response of ECFRS and the response of the council. The fire started in a bedroom in Flat 48 on the 7th floor of George Tilbury House and was reported to the Essex County Fire & Rescue Service at approximately 5.40pm. ECFRS implemented their full high-rise procedures and had 8 pumps in attendance. Housing staff were on the scene within 10 minutes and the Emergency Planning arrangements established after the Grenfell Tower fire tragedy implemented.
- 2.10 ECFRS confirmed their "stay put" policy and urged residents who had started to evacuate the block to return to the safety of their flats to enable the fire crews to deal with the fire. The fire was tackled from the landing and contained within the flat itself but the property was been extensively damaged. Heat from the fire has damaged the windows of the flat above and water from tackling the fire entered the flat below. Damage to the landing and stairwell

was restricted by the automatic communal doors closing preventing smoke extending beyond the immediate vicinity of the fire.

- 2.11 The design, construction and layout of the block meant that the fire service's "stay put" policy worked and no injuries were sustained to any resident directly or indirectly as a result of the fire. Council staff and other agencies offered advice and support to everyone affected by the fire. The four households specifically affected were all provided with temporary accommodation overnight and staff worked with them thereafter to help them cope with the immediate disruption to their lives pending more permanent solutions to resolve their housing needs.

3. Fire Suppressant (Sprinkler) Measures:

- 3.1 Thurrock Council have been proactive in reviewing their housing stock regarding fire safety and fire suppression systems and as part of this an initial feasibility study was completed in late 2017 to assess the benefits and costs of retrospectively fitting sprinklers into the fifteen high-rise blocks in the Borough.
- 3.2 All of Thurrock Council's high-rise blocks maintain and enforce "sterile" communal areas as these are kept free of combustible materials by the caretaking teams and the automatic door closing systems further limit the spread of heat and smoke. In addition evidence shows that the majority of fires start in individual flats and therefore this has been the focus of the assessment.
- 3.3 Sprinkler systems operate on the basis of 2 to 4 sprinkler heads set off by the heat working at any one time to suppress the initial fire. If the fire spreads the activation of additional sprinkler heads will cause the water pressure to drop in the system thereby reducing its effectiveness. The high-rise blocks within Thurrock range from 12-15 storeys in height and with the exception of the three tower blocks in Blackshots, the tower blocks are grouped in threes constructed in close proximity to each other. The feasibility assessment was based on a dedicated pump system purpose built centrally at the base of each cluster of three high-rise blocks that would serve all three blocks in the event of a fire.
- 3.4 The installation of sprinkler systems would require a stand-alone pipework system. This would need to be concealed in communal areas and contain anti-vandal fittings. Consideration would also need to be given to concealing the pipework in individual flats for aesthetic reasons.
- 3.5 It is estimated that the total cost of retrospectively fitting sprinkler systems into the borough's 15 high-rise blocks would be £3.3m. Grant funding of £10,000 per high-rise block has been made available to the council from ECFRS. This grant is only payable on completion of the works and at this stage is not time restricted. Whilst this is a significant amount of capital in the form of a grant it would still leave a £3.15m shortfall in the funding requirements if the council were to retrospectively fit sprinklers into each high-rise block.

- 3.6 The Committee will be aware that the authority has actively promoted fire safety in all council owned residential premises. We have undertaken joint fire safety inspections with the Essex County Fire & Rescue Service and addressed all urgent fire safety issues. We have a rolling programme of improvement work for both individual flats and communal areas including landings & drying areas and continue to update information for residents on a regular basis. We have implemented management measures to ensure all communal areas are kept clear of personal property and possessions with unauthorised items removed from communal areas and appropriately disposed of. Estate Caretakers act as the eyes and ears of the service and routine inspections ensure that communal areas are kept clean and clear.
- 3.7 At the time of preparing this report no government guidance or regulation had been received on changed regulation for fire doors or on the retrospective fitting of sprinkler systems into high-rise blocks. These will be kept under review.

4. CONSULTATION (including Overview and Scrutiny, if applicable)

- 4.1 Residents in all buildings with communal entrances, including the high-rise blocks, have been provided with detailed information on all fire safety measures applicable to where they live. Fire safety information is posted on notice boards in all communal entrances.

5. IMPACT ON CORPORATE POLICIES, PRIORITIES, PERFORMANCE AND COMMUNITY IMPACT

- 5.1 The authority has corporate responsibility for all appropriate fire safety measures in dwellings with communal entrances, including low, medium and high-rise dwellings. Failure to provide adequate safety measures including the fabric of the building and the advice given to occupiers and visitors could be a breach of this corporate responsibility. The work undertaken to date to deal with any outstanding safety issues identified by ECFRS, the ongoing work to upgrade fire safety measures in individual flats and communal areas and the regular updating of information for residents and visitors is essential in meeting our corporate responsibilities.

6. IMPLICATIONS

6.1 Financial

The funding for the ongoing fire safety measures outlined above has been budgeted for in the current Housing Revenue Account Business Plan. Funding for the retrospective fitting of sprinklers into high-rise blocks is estimated to be in excess of £3m and would have to be met from the Housing Revenue Account. This would be a further pressure on the Housing Revenue Account and would need to be included in future HRA Business Plans.

Implications verified by: **Julie Curtis**

Housing Finance Manager

6.2 **Legal**

The council currently meets all its obligations regarding the health and safety of its tenants.

Implications verified by: **Richard Birchett**

Interim Assistant Director Housing

6.3 **Diversity and Equality**

The council's fire safety and enforcement measures are applied equally to all residents and visitors to the council's managed and maintained stock.

Implications verified by: **Natalie Warren**

Strategic Lead : Community Development

6.4 **Other implications**

None

7. **CONCLUSION**

- 7.1 The council responded quickly to the Grenfell Tower tragedy and has a robust and detailed approach to ensuring the safety of all occupants in its high, medium and low-rise blocks and other dwellings with communal facilities. This includes providing up to date advice to all residents and visitors, regular inspection, remedial action where necessary and regular reviews of current measures. This includes assessing the benefits of retrospectively fitting sprinklers to individual dwellings in high-rise blocks.

BACKGROUND PAPERS USED IN PREPARING THIS REPORT:

- Essex County Fire & Rescue Service Sprinkler Funding Offer

APPENDICES TO THIS REPORT:

- None

Report Author:

Richard Birchett

Interim Assistant Director of Housing