

Committee(s): Barbican Estate Residents Consultation Committee – For information	Dated: 2 September 2024
Barbican Residential Committee – For information	16 September 2024
Subject: Barbican Estate Office – Sprinklers	Public
Which outcomes in the City Corporation’s Corporate Plan does this proposal aim to impact directly?	N/A
Does this proposal require extra revenue and/or capital spending?	No
If so, how much?	N/A
What is the source of Funding?	N/A
Has this Funding Source been agreed with the Chamberlain’s Department?	N/A
Report of: Judith Finlay, Executive Director of Community and Children’s Services	For Information
Report author: Daniel Sanders – Assistant Director – Barbican	

Summary

The Barbican Estate towers (Cromwell Tower, Lauderdale Tower, and Shakespeare Tower) are an iconic example of brutalist architecture due to their robust and predominantly concrete construction.

In recent years, there has been growing concern about fire safety in high-rise residential buildings, particularly following the tragic Grenfell Tower fire in 2017. This has led to calls for the retrofitting of sprinkler systems in older buildings. However, there are compelling reasons why the Barbican Estate towers may not need retrofit sprinkler systems, based on their unique architectural features, existing fire safety measures, and the practical challenges associated with retrofitting.

Recommendations

Members are asked to:

- Note the report.

Main Report

1. Robust Fire Safety Design

One of the primary reasons the Barbican Estate towers may not require retrofit sprinkler systems is the robust fire safety design inherent in their construction. The towers were built with reinforced concrete, which is highly resistant to fire. The compartmentalization of the building into separate flats and the use of fire-resistant materials in walls and floors will help to contain any potential fire, preventing it from spreading rapidly throughout the building.

The layout of the towers includes multiple fire escape routes, with stairwells designed to be fire-resistant and free from combustible materials. These features provide residents with safe evacuation paths in the event of a fire, reducing the reliance on sprinkler systems as the primary means of fire control.

2. Existing Fire Safety Measures

The Barbican Estate already has several fire safety measures in place that contribute to the overall safety of the residents. These include regular fire risk assessments, smoke detection systems, and alarm systems that are designed to provide early warning in the event of a fire.

The estate management conducts regular maintenance and safety checks to ensure that all fire safety equipment is functioning correctly and that fire escape routes remain unobstructed.

Additionally, the estate's fire safety strategy includes strict controls on modifications within flats, ensuring that any changes comply with fire safety regulations. This reduces the likelihood of fire hazards being introduced through resident modifications.

3. Practical Challenges of Retrofitting

Retrofitting sprinkler systems in the Barbican Estate towers would present significant practical challenges, both technical and logistical. The complex and historic nature of the building means that installing a modern sprinkler system would require substantial modifications to the existing structure.

This will involve invasive work that might compromise the building's architectural integrity, affect the aesthetics of the heritage site, and disrupt the daily lives of residents.

The Barbican Estate is Grade II listed site, meaning that any significant alterations to the buildings would require approval from heritage bodies. The retrofitting process would be lengthy, costly, and may not yield the intended benefits when considering the building's already robust fire safety features.

4. Cost-Benefit Consideration

The cost of retrofitting sprinkler systems in the Barbican Estate towers would be considerable, and the benefits may not justify this expenditure given the existing fire safety measures. Investing in enhancing and maintaining current systems, such as

regular fire risk assessments, improved smoke detection, and resident fire safety education, may provide a more cost-effective way of ensuring safety without the need for a full retrofit.

There Estate has had relatively low fire-related incidents which suggests that the existing safety measures have been effective over the decades. Therefore, the financial resources required for retrofitting might be better allocated to other improvements such as the fire stopping programme in the vertical risers.

5. Conclusion

While fire safety is of utmost importance, the unique characteristics of the Barbican Estate towers suggest that retrofitting sprinkler systems may not be necessary. The robust construction, existing fire safety measures, practical challenges of retrofitting, and cost considerations all point towards maintaining and enhancing current safety protocols as a more viable approach. Instead of retrofitting, a focus on rigorous fire safety management and continuous improvements in existing systems can effectively safeguard the residents while preserving the historical and architectural integrity of the Estate.

We will continue to review fire risk on an ongoing basis, and should we become aware of certain risks that require mitigation through sprinklers we will revisit the merit for sprinkler installation but at the moment, we do not plan to proceed with retrofit sprinkler installation.

Report of Daniel Sanders

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