CONSULTANTS' ADVICE NOTE

Arthur Stanley House
Smoke Extract System Fire Statement

1 INTRODUCTION

1.1 Intent

This Consultants' Advice Note (CAN) has been produced to provide the fire safety justification for a minor application for planning regarding the provision of fire safety equipment that is essential for a smoke ventilation system for Arthur Stanley House in London.

Previous planning permission (ref. 2017/4306/P as amended) was approved in 2018 in the intervening years the fire industry has been responding to more onerous fire safety requirements imposed by key stakeholders including the London Fire Brigade. Within the consented scheme at the site, an AOV was situated at the head of the main commercial stair. However, after a long design process and delayed LFB submission / review (due to COVID-19), the fire safety ventilation system within the main stair was subjected to more onerous requirements and focus.

This CAN is to highlight the reasoning why this system was introduced at a late stage of design.

1.2 Change in Requirements

Upon review of the more onerous requirements on fire safety, the previously suitable solution in the early stages of design was re-evaluated against more stringent acceptance criteria.

To meet the more onerous requirements of the LFB and Building Control Body peer review process, the AOV at the head of the main stair was replaced with a mechanical fan set that will form a vital part of the life safety (smoke ventilation) system in a fire. Without this fan set, LFB and Building Control approval would not be obtainable, and the building could not be occupied. Alternative solutions were explored; however, these alternative solutions were not feasible due to a variety of constraints such as clashes with existing structure, technical system restrictions on pressure differences and substantial smoke shaft size increases that are not possible due to clashes with other services.

1.3 Conclusion

The following are concluded with respect to the requirement for the proposed second fan set:

- This system is necessary for the fire safety design of the building and forms an essential part of the LFB and BCB approvals process.

- The system will only be active in the event of a fire within the building, or during testing, and therefore the duration of exposure to noise generated by the fan sets and frequency of exposure is limited to testing and emergency only.

QUALITY CONTROL

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