

Rear of Innovation Court,
Basingstoke,
RG21 7JB

Planning Fire Safety Strategy



APEX
STRATEGIES

Control Sheet

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1. Introduction

1.1 - Overview

This Planning Fire Safety Strategy ('The Strategy', hereafter) has been prepared by Apex Strategies Ltd. on behalf of Innovation Mews Ltd in relation to development proposals comprising the construction of 9 new residential flats within the existing car parking area to the rear of Innovation Court, Basingstoke, RG21 7JB.

Innovation Court itself has been the subject of recent planning approvals including the change of use from class B1 (a) office to class C3 (dwellinghouse) consisting of 46 no. residential units (Ref. No: 18/01504/GPDOFF) and the erection of a third floor extension to the existing block of flats to form 6 no. 2 bed flats, including associated parking and amenity space (Ref. No: 20/00414/FUL).

1.2 - Policy Context

Historically, fire safety has always been a matter of Building Regulations (Part B); however, in light of the tragedy at Grenfell Tower in June 2017 the role of fire safety in planning has been changing and we are now beginning to see policies being introduced at both a local and national level.

For example, the new London Plan was adopted in March 2021 and saw the introduction of two new policies relating to fire safety: Policy D5 (Inclusive Design) and Policy D12 (Fire Safety). The aim of these policies is to address fire safety at the planning application stage, rather than waiting until the Building Control application, by which point many of the designs have already been determined.

Whilst it is understood that there are no specific policy requirements relating to fire safety within Basingstoke and Deane Borough Council's local planning policy framework; in the interest of good planning and fire safety, this Fire Safety Strategy seeks to demonstrate that appropriate consideration has been given to fire safety from the outset.

This document does not constitute the detailed fire strategy under the Building Regulations which will be developed as the scheme progresses. However, this Strategy evidences the provisions made for the safety of occupants and protection of property as well as the provision of suitable access and provisions for firefighting and the rationale for these measures.

In the absence of any specific local planning policy, this report has been prepared in the context of London Plan (2021) Policy D12(a) 'Fire Safety', which states;

"In the interests of fire safety and to ensure the safety of all building users, all development proposals must achieve the highest standards of fire safety and ensure that they:

- 1. identify suitably positioned unobstructed outside space:
 - a. for fire appliances to be positioned on*
 - b. appropriate for use as an evacuation assembly point**
- 2. are designed to incorporate appropriate features which reduce the risk to life and the risk of serious injury in the event of a fire; including appropriate fire alarm systems and passive and active fire safety measures*
- 3. are constructed in an appropriate way to minimise the risk of fire spread*
- 4. provide suitable and convenient means of escape, and associated evacuation strategy for all building users*
- 5. develop a robust strategy for evacuation which can be periodically updated and published, and which all building users can have confidence in*
- 6. provide suitable access and equipment for firefighting which is appropriate for the size and use of the development."*

The Strategy is also written in cognisance of London Plan (2021) Policy D5(B5) 'Inclusive Design', which states;

"Development proposals should achieve the highest standards of accessible and inclusive design. They should be designed to incorporate safe and dignified emergency evacuation for all building users. In all developments where lifts are installed, as a minimum at least one lift per core (or more subject to capacity assessments) should be a suitably sized fire evacuation lift suitable to be used to evacuate people who require level access from the building."

2. Fire Service Vehicle Access & Assembly

2.1 - Fire Service Vehicle Access

The site takes vehicular access, via a simple priority junction, onto New Street which is a one-way (northbound), two-lane carriageway merging to one-lane just north of the site. Within the site, access to the rear of Innovation Court is provided by an access road around the southern end of the building.

London Fire Brigade's Fire Safety Guidance Note (GN29): 'Access for Fire Appliances' states that pumping appliances should be provided with 6m working area(s) at appropriate locations where appliances are to be positioned and used around the building. The effective width available for Fire & Rescue operations to be carried out within the site is considered acceptable.

Drawing F1020-001 at **Appendix A** shows that a London Fire Brigade Pumping Appliance can safely access and egress the site in forward gear and that sufficient space is available within the site for the vehicle to turn around.

It is therefore concluded that unobstructed access for fire service vehicles is achievable.

2.2 - Assembly Points

In principle, assembly points should be located sufficiently far from the premises to minimise interference with the fire and rescue service or danger from falling debris, but should be accessible and not so far away as to discourage people from assembling. Ideally the Fire Assembly Point should be located so as not to require the crossing of a road or movement through trafficked areas.

Drawing F1020-001 at **Appendix A** shows a proposed assembly point located within the north-eastern corner of the surrounding car parking area at a distance of ~30m from the building entrance. The evacuation routes from each of the site's fire exits to the point of assembly are also shown.

The assembly point is considered appropriate as it is located at a safe distance from the building and would minimise interference with the fire and rescue service or danger from falling debris.

It should be noted that the building shall adopt a 'Stay in Place' evacuation strategy, therefore, the simultaneous evacuation of the building in the event of a fire would not be necessary. Only the occupants of the affected flat(s) would be expected to evacuate.

A suitably sized, unobstructed outside space has been identified for use as an evacuation assembly point.

3. Fire Safety Measures

3.1 - Overview

The inclusion of active and passive fire and smoke control systems within the building is intended to ensure that the means of escape provided remains available to occupants throughout the evacuation of the building in fire conditions and maintain tenable conditions for longer periods during fire-fighting operations.

3.2 - Active Measures

3.2.1 - Fire Detection and Alarm System

An automatic detection and alarm system in a building provides an effective means to identify a fire scenario in the early stages of fire growth and provide an alarm notifying building occupants automatically of the fire scenario with a clear message or sound.

A fire detection and alarm system designed, installed & commissioned in accordance with BS 5839-6:2019+A1:2020 (minimum Grade D1 Category LD2, or better) shall be provided within all circulation spaces that form part of the escape routes from the premises, and in all rooms or areas that present a high risk of fire to occupants.

3.2.2 - Sprinkler Systems

The changes to ADB introduced in May 2020 included a reduction in the trigger height for sprinkler systems from 30m to 11m, with ADB stating that; *"Blocks of flats with a top storey more than 11m above ground level (see Diagram D6) should be fitted with a sprinkler system throughout the building..."*.

The top storey of the proposed development has a ground floor level of 6m, therefore the provision of sprinklers is not required.

3.2.3 - Smoke Control

In the event of a fire within an apartment, there arises a potential for smoke ingress into common areas of the development (i.e. the stairwell and hallways). Therefore, a smoke ventilation system is recommended in the common areas of the development that is suitable and demonstrates that the area will return to tenable conditions.

The proposed development has the characteristics of a small single stair building and has a maximum travel distance of 4.5m between the flat entrances and the protected stairway. In accordance with ADB Diagram 3.9, no smoke control is required in the common lobby; however, an Automatic Opening Vent (AOV) is proposed within the common stairwell providing natural ventilation and ensuring the means of escape remains free of smoke.

3.2.4 - Emergency Signage

The proposal comprises a block of flats with a single stair core providing means of escape to the upper floors. Therefore, in accordance with Approved Document Part B (ADB) Volume 1, no fire exit signage is required.

3.2.5 - Emergency Lighting

An emergency lighting system will be installed in accordance with the recommendations of BS 5266-1. The purpose of this system is to provide temporary illumination in the event that the primary power supply fails on the normal lighting system.

Dedicated escape lighting will ensure escape routes are illuminated in the event of an emergency. This system will illuminate a safe exit route including the fire exits, manual call points, changes in level or direction and firefighting equipment.

Appropriate fire safety features which reduce the risk to life and the risk of serious injury in the event of a fire are to be accommodated throughout the development.

3.3 - Passive Fire Protection

The building shall be designed and constructed so that in the event of fire, its stability will be maintained for a reasonable period.

3.3.1 - Compartmentation

Compartmentation is the process of dividing a structure into 'compartments' for effective risk management. The main objective of compartmentation is to contain a fire within a specific section of a building, limiting the passage of flames and smoke. This then allows more time for occupants to safely evacuate a building and for fire services to extinguish the flames.

ADB Table B4 sets out minimum periods of fire resistance for a range of development types. It is stated residential flats with a top floor over 5m and up to 11m above ground level (without sprinklers) must achieve a minimum of 60 mins* fire resistance.

**For any floor that does not contribute to the support of the building within a flat of more than one storey, the period is reduced to 30 minutes.*

The proposal has been designed to meet the minimum levels of fire resistance outlined within ADB.

3.3.2 - Fire Stopping, openings and concealed spaces

As the building is still being developed, the recommendations regarding fire stopping and protection of openings and concealed spaces will be discussed once the building design has progressed through RIBA Stage 3.

The proposed design features appropriate compartmentation and protection measures to reduce the risk of fire spread.

4. Escape and Evacuation

4.1 - Means of Escape

Means of escape is to be provided to facilitate occupancy escape from the building to a place of safety.

4.1.1 - Residential Flats

All proposed flats have been designed to feature a protected hallway (minimum REI 30) serving all habitable rooms. Travel distances between the flat entrance door and any point within habitable rooms are below the permitted maximum of 9m.

Inner rooms are featured within the proposed 2-bedroom flats, however these are limited to en-suite bathrooms; this is permitted within ADB. There are no proposed inner inner rooms (i.e. rooms accessed via an inner room).

Alternative means of escape are available at ground floor level from the main living / dining areas, and from the bedroom of the 1-bed flat, via escape doors into the respective rear garden areas. Each garden has a gate which leads to a final place of safety.

4.1.2 - Residential Balconies

The proposed 6 N° flats on the upper storeys of the building are each to be provided with an amenity terrace / balcony. In accordance with Annex D of BS 9991:2015:

- a. The escape routes from the balconies do not pass through more than one access room.
- b. Where the interior of the access room is not clearly visible from all parts of the balcony a suitable fire detection and alarm system shall be installed.
- c. Any cooking risk in the access room shall be enclosed with fire-resisting construction unless:
 - The open cooking risk is remote from the balcony and positioned in such a way that it does not prejudice the escape route through the access room; and
 - A fire detection and fire alarm system in accordance with BS5839-6:2019+A1:2020 is provided to the access room with an alarm system on the balcony.
- d. The travel distances from the balcony access doors to the furthest point on the balconies are below 7.5 m.

4.1.3 Common Areas

All flats on the upper storeys of the development are served by a single common stair and passenger lift located centrally along the northern edge of the development.

The common stair is to be used for firefighting and therefore in accordance with ADB should have a minimum width of 1100mm. The common stair has a proposed width of 1200m.

Every flat is separated from the common stair by a common protected corridor.

The maximum travel distance between the flat entrances and the protected stairway is below 4.5m in accordance with the requirements for small single stair buildings as outlined in Table 3.1 of ADB Volume 1.

4.2 - Evacuation Strategy

Provisions are made throughout the development to ensure that a fire is contained within the flat of origin and that common escape routes, safe areas and stairways remain relatively free from smoke and heat in the event of a fire within a dwelling. This is premised upon the high levels of fire compartmentation (i.e. walls and floors of fire-resisting construction) and smoke control systems in place, as life safety features (see details in Chapter 3 of this Strategy).

The 'stay in place' evacuation regime is the standard approach to residential developments in the UK. This means that only the flat of fire origin is expected to evacuate in the event of a fire and other flats will not be automatically notified. Furthermore, the activation of a detector in the common areas or ancillary spaces is not intended to cause a general building evacuation.

Although the evacuation strategy is a 'stay in place' regime, the strategy has been developed to enable other occupants of the building to;

- a. be safe to stay within their apartments in the event of a fire elsewhere in the building, for a reasonable period of time, allowing the fire service to effectively undertake their operations; and,
- b. to be safe to evacuate if they chose to do so or if they are instructed to do so by the Fire Service.

Simultaneous evacuation of the building is unlikely to be necessary. Further evacuation of apartments will not take place automatically but will be reliant upon the Fire Service, building management or the independent action of individual occupants.

Appendix B contains a template Residential Fire Evacuation Strategy which sets out how residents will move to a safe location in the event of an emergency.

Details of the means of escape and proposed evacuation strategy have been provided and an evacuation strategy template has been prepared in order to support the Golden Thread of fire safety information that is to be updated and maintained through the whole life cycle of the building.

4.3 - Evacuation Lift

The London Plan – Policy D5 (Inclusive Design) requests the highest level of accessibility and recommends that at least one lift (excluding the dedicated firefighting lift) should be a suitably sized fire evacuation lift. The purpose of this enhanced provision which is over & above the minimum recommendation within the British Standards is to evacuate people who require level access from the building.

In non-emergency situations, evacuation lifts operate as normal passenger lifts allowing everyday use, but they have additional functions and capabilities which allow them to shift into an emergency state, if required.

Key features of an evacuation lift include:

- Cause and effect interface between the lift control system, fire detection and alarm system to support the evacuation strategy.
- Emergency intercom/ communication system and lift operation.
- Provision of a management plan to determine operational procedures for trained staff designated to manage and use the lift in an emergency situation.
- Separate power supply to the lift to enable the lift to remain in use throughout the evacuation process.

A passenger lift suitable for evacuation from the upper floors of the development is proposed within the common corridor. In accordance with ADB, the lift shaft shall have fire resisting construction (minimum REI 30).

The draft guidance associated with London Plan Policy D5(B5) identifies the relevant British Standards as “BS EN 81-76”. It is noted that a draft copy of BS EN 81-76; (Evacuation of persons with disabilities using lifts) was released for public comment in late 2019 and was up for comment resolution scheduled by 14/12/21. Once BS EN 81-76 becomes an adopted standard, the specification of the proposed lift will be reviewed and any required changes will be provided in accordance with the adopted standard.

A suitably sized fire evacuation lift suitable to be used to evacuate people who require level access from the building will be provided.

5. Access and Facilities for Fire Fighting

In low rise buildings without deep basements (defined as more than 10m below the firefighting access level), access for firefighting personnel is typically achieved by providing measures for fire service vehicle access (as detailed in Chapter 1) and means of escape (as detailed in Chapter 4).

Drawing F1020-001 at **Appendix A** shows that a London Fire Brigade Pumping Appliance can safely access and egress the site in forward gear and that sufficient space is available within the site for the vehicle to turn around.

ADB Volume 1 requirement B5 states that, for flats, either of the following provisions should be made;

- a. *Provide access for a pumping appliance should be provided within 45m of all points inside each flat of a block, measured along the route of a hose.*
- b. *Provide fire mains in accordance with paragraphs 13.5 [Dry Fire Mains] and 13.6 [Wet Fire Mains].*

The distance between the likely servicing position of the pumping appliance and the furthest point within the development (measured along the route of the hose) is within 45m and therefore it is considered that the provision of fire mains is not required.

The nearest existing fire hydrant is understood to be located adjacent to the former Post Office building on New Street at a distance of approximately 140m to the east of the site access. ADB states that additional hydrants are required if the building is sited further than 100m from an existing hydrant. On this basis, it is recommended that a private hydrant is provided in accordance with BS9990 and BS3251.

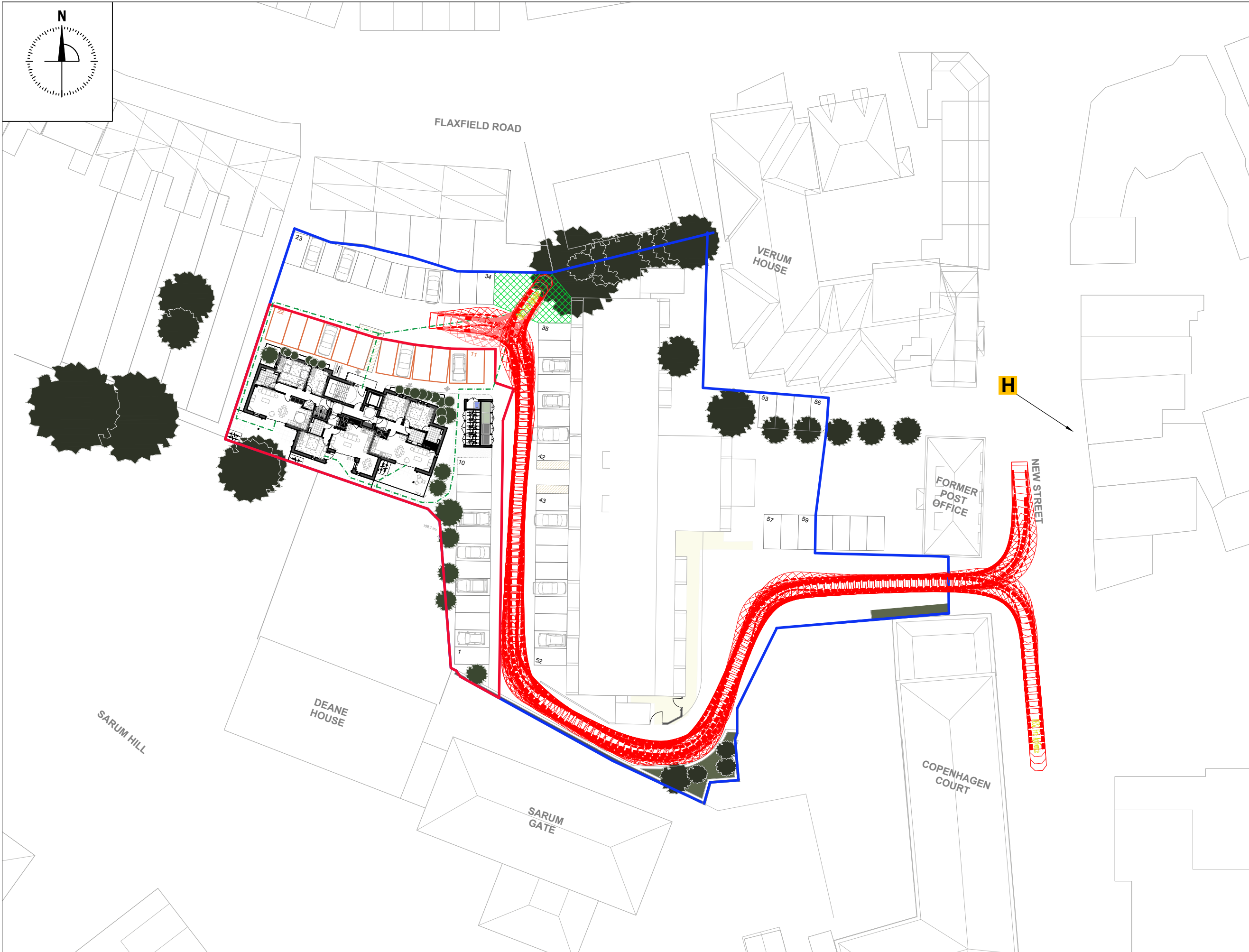
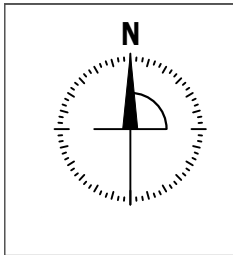
As well as supporting the building occupant life safety objectives, the provision of both passive and active fire safety systems (i.e. ventilation and emergency lighting) also provides substantial benefits to firefighter operations.





It is considered that suitable access and equipment will be provided to facilitate firefighting.

Appendices

Appendix A

Drawing F1020-001



- KEY**
-  Fire Assembly Point
 -  Evacuation Route
 -  DB32 Fire Appliance
 -  Existing Fire Hydrant



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PROJECT:	Rear of Innovation Court, Basingstoke RG21 7JB	
TITLE:	Fire Service Access	
CLIENT:	Innovation Mews Ltd	
DWG REF:	F1020-001	REV:
SCALE:	1:500	
DRAWN BY:	BL	

Appendix B

Residential Evacuation Strategy

Fire Evacuation Strategy

Evacuation Strategy for :	Residential
Premises address and contact number	Land to the rear of Innovation Court, Basingstoke RG21 7JB
	Tel: TBC
Plan date	TBC – Document prepared for planning
Review date	Annually

Overview

'Stay in Place' - Provisions are made throughout the development to ensure that a fire is contained within the flat of origin and that common escape routes, safe areas and stairways remain relatively free from smoke and heat in the event of a fire within a dwelling.

Stay in Place Evacuation Strategy

- If a fire occurs within a flat, the occupants should immediately alert others in the flat, make their way out of the building and summon the fire and rescue service;
- If a fire starts in the common parts of the development, anyone in these areas should make their way out of the building and summon the fire and rescue service;
- All other residents not directly affected by the fire would be expected to 'stay in place' and remain in their flat unless directed to leave by the fire and rescue service.

Escape routes

The escape routes from the building are via the main stairway.

Evacuation Lift

The lift available within the development features additional functions and capabilities allowing the lift to shift into an emergency state and facilitate the evacuation of people who require level access from the building. Use of the lift will be prioritised towards those with additional needs for evacuation.

Fire assembly point

The assembly point is located within the north-eastern corner of the surrounding car parking area at a distance of ~30m from the building entrance.

Fighting fires – Extinguisher use

Fire extinguishers will only be used where:

- Residents have received training and feel confident in their use
- Where it is deemed safe to do so i.e. there is a clear means of escape, fire is small

Personal safety always takes priority and, if in any doubt, residents should not attempt to extinguish a fire

Location of key safety hazards or other fire related equipment

- Gas supply shut off: **TBC**
- Mains fuse box: **TBC**
- Mains water inlet: **TBC**
- Gas/oxygen cylinders: **TBC**
- Location of fire alarm panel: **TBC**

Responsibilities

For ensuring plan is up to date	TBC - Usually the premises manager
For ensuring adequate staff are on duty to carry out the evacuation plan	As above
For training staff on the evacuation plan and in their roles and responsibilities	As above

Attach any Personal Emergency Evacuation and General Emergency Evacuation Plans to this document



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