











# Fire Statement Policy D12 & **Fire Safety Design Strategy Issue 1.5 June**



Client: Hampton School

Hampton School, 41 – 43 Wensleydale **Premises:** 

> Road, Hampton London TW12 2LP

> > Prepared by: Paul Molloy, BEng (Hons) MIFireE













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#### Notes:

This document is provided for the purpose of enabling Hampton School, and the developers to demonstrate compliance with the appropriate fire safety performance levels required by the relevant building in accord with Policy D12 A of the London Plan. It should not be manipulated, abridged or otherwise presented without the formal written consent of the author.













# 1. Executive Summary

Adena Fire safety Services have been commissioned by Hampton School to ensure appropriate fire safety measures are introduced to the existing building at 41-43 Wensleydale Road, Hampton, London TW12 2LP. It can be used as part of the submission to the Planners to demonstrate Policy D12 is achieved and Building Control Body to demonstrate compliance with the relevant fire safety requirements.

The report has been developed to document the fire safety provisions in the building which is being extended and remodelled to provide educational accommodation for a pre-prep school.

This strategy document and fire statement should be used to provide a benchmark reference for fire safety matters, these must be considered whenever carrying out alterations to the design of the building or making other significant changes to its use or occupancy profile, and when undertaking fire risk assessments.

The document only considers life safety issues and any additional requirements regarding property protection are outside the scope of this document.

There is an inherent risk in all fire safety designs, including those that are code compliant and where fire engineering has been used to develop the fire strategy, however on-going fire safety management and fire risk assessment along with regular reviews with enforcing/approving authorities should enable this risk to be kept to a minimum.

The design code Building Bulletin 100 Design for Fire Safety in Schools<sup>1</sup>, places an expectation that sprinkler protection will be provided unless the building can be demonstrated to be low risk by way of a deterministic fire risk assessment based on the incidence of arson in the area, environmental and building considerations, any fire safety measures provided and the potential consequences of a fire occurring.

Version 1.5 of this document is to reflect the continued compliance of the design including the use of the existing external escape stair and the reconfiguration of the new corridor accessing the multi-purpose hall. The means of escape travel distances and numbers of exits remain unchanged and as such are suitable.











# 2. Author

The author Paul Molloy BEng (Hons) (Fire Engineering) MIFireE has been involved in the fire sector for 36 years, with 30 years of operational experience dealing with the effects of fire on the built environment. Paul has a wealth of experience in assessing building fire safety proposals, as his last 11 years in the Fire Service he was assessing the suitability of fire safety proposals and ran a busy City Fire Safety Department. Paul was awarded a Degree in Fire Engineering, as part of the research required, he conducted large scale fire tests, he has used his skills and knowledge of fire behaviour to assess and promote fire engineering within the built environment.

Paul has been employed by Adena Fire Safety Services Ltd as a senior Fire Engineer for four years, where he writes fire strategies and assesses fire safety solutions for a variety of clients including multi-storey residential, commercial, assembly and recreation, offices, schools and healthcare providers. Paul therefore possesses the necessary skills and knowledge to author the fire statement for this development.

Steve has now served for 27 years in the local Fire & Rescue Service, and has worked in a variety of roles as an Operational Fire-fighter, Crew Manager, Watch Manager and since April 2018 as a Station Manager.

He works within the local authority Fire Prevention team, who are responsible for enforcing the Fire Safety Order. As the Building Control Liaison Officer he is responsible for undertaking Building Regulation consultations across the County with local Building Control bodies and Approved Inspectors. The level of work varies from complex fire engineered solutions to quite straight forward developments.

In 2018 Steve completed his Level 4 Diploma in Fire Safety and this year completed his IFE Level 5 Diploma in Fire Engineering Design. In October 2020 he commenced a part-time degree course working towards his BEng(hons) in Fire Risk Engineering with Glasgow Caledonian University at their London campus. He is a Member of the Institution of Fire Engineers (IFE).













#### 3. Introduction

The fire safety statement and design strategy report document the fire safety arrangements and features within the building at 41 - 43 Wensleydale Road, Hampton, London TW12 2LP. This report highlights the extent to which the proposed fire safety measures offer the highest standards of fire safety.

The strategy outlines the critical fire safety features within this part of the building so that these measures are not unintentionally altered, as part of the day to day design or management and benchmarks the fire safety provision should any further alterations or extensions be proposed.

#### 3.1. Scope and Purpose

The report applies only to this address and is intended to provide the relevant persons such as planners, building control body, architects, building owners and occupiers with all the necessary fire safety information; such that when refurbishments, alterations to the design or other changes take place they are fully aware of the critical fire safety features within the building so that they can ensure that these measures are not unintentionally altered.

#### 3.2. Limitations

The opinions and findings noted in the report are made based solely upon the information and documentation provided.

#### 3.3. Site Description

The site 41 – 43 Wensleydale Road, Hampton, London TW12 2LP, is a terraced property over ground and first floors. It is traditionally constructed of brick and block with timber floors, it has large, glazed areas to the front façade of the building and a pitched tiled roof space.











Figure 1: Existing layout Ground Floor Building

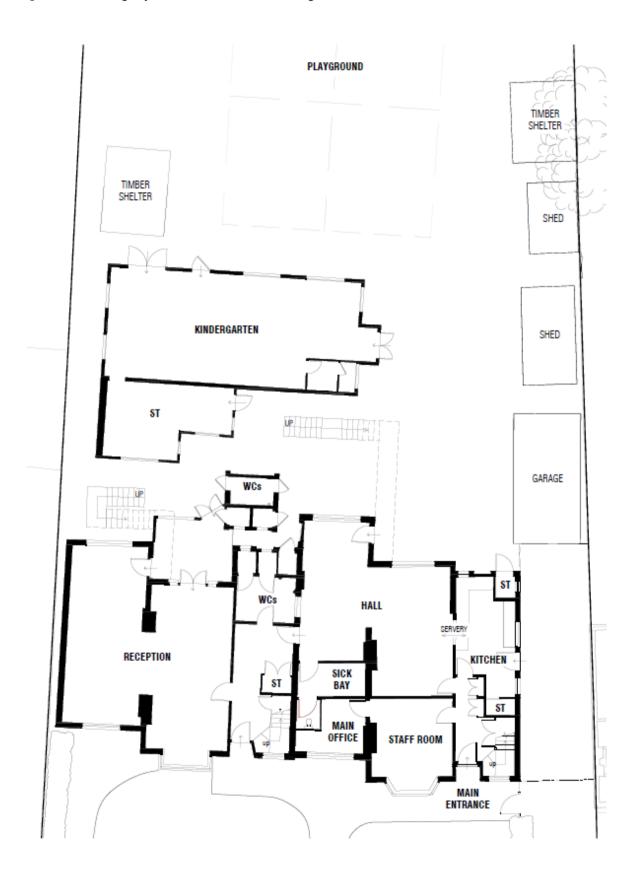












Figure 2: Existing First Floor

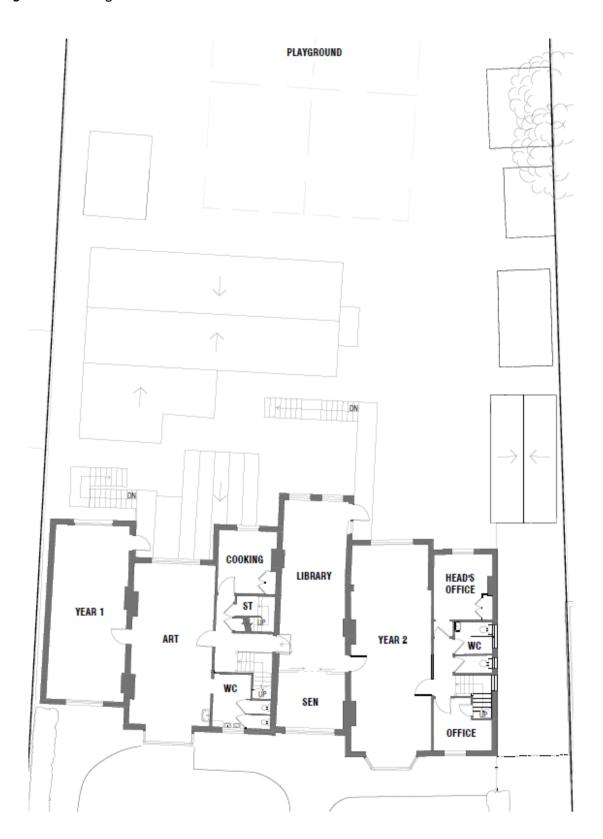














Figure 3: Proposed layout Ground Floor

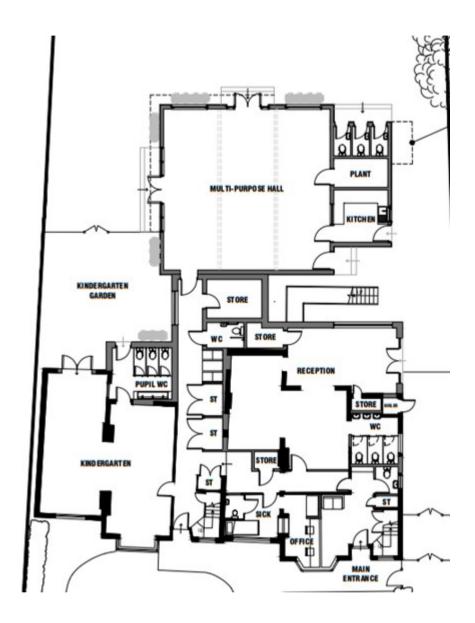




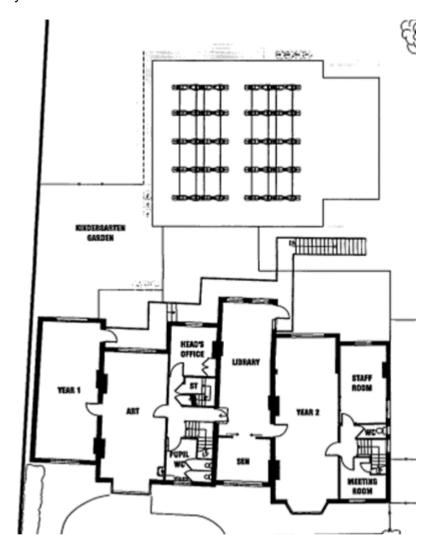








Figure 4: Proposed layout First Floor



The ground floor is proposed to house the school main entrance, with offices, the reception and kindergarten teaching spaces will be located on the ground floor. Additionally, it is proposed to have a multi-purpose hall with a kitchen and plant room area. There will also be toilets and storage rooms provided commensurate with this type of use.

The first floor will accommodate the teaching spaces for years one and two. The first floor will also have an art studio and library located within the central portion of the building. The first floor also houses the staff room and associated meeting rooms and offices as well as toilets commensurate with this type of use.

Note it is proposed that the multi-purpose hall will be modular construction.













# 4. Legislation

# 4.1. Building Regulations

Building Regulations require a building owner to provide adequate levels of life safety to the building by providing suitable

- i Means of escape
- . Means of warning occupants of a fire
- Limiting internal fire spread
- iii. Limiting external fire spread, and protection to adjacent property from fire
- iv. Access and facilities for Fire Service operations.

This is normally achieved by following the guidance in Approved Document B² (ADB), and BB 100 for schools and colleges. Other documents are available and consist of a three-tier approach guidance; simple premises normally follow the guidance documented within (ADB), while other approaches are also acceptable as detailed in BS 9999 Code of Practice for Fire Safety in the Design, Management and Use of Buildings³, where the buildings are more complex in design. Alternatively, where more innovative solutions and fire safety concepts are involved, fire engineering may be used following the principles in BS 7974⁴ to demonstrate an equivalent or better level of life safety is provided in the building(s). This development utilises the principles set out in BB 100.

#### 4.1.1. Building Regulations Purpose Group

The building is used for teaching and is classified as Assembly and Recreation 5 in accordance with the Building Regulations Approved Document B: Fire Safety Table 0.1.

#### 4.1.2. Current Approvals Position to date

It is understood the existing building is being subject to the necessary processes for planning; and building regulations and that these are yet to gain approval. The purpose of this strategy is to allow the developer to present a comprehensive fire design strategy document to the Local Authority and the Local Fire Authority, to ensure approval is achieved, and adherence to Policy D12 is demonstrated.

#### 4.2. Regulatory Reform (Fire Safety) Order 2005

Upon occupation of the building "The Regulatory Reform (Fire Safety) Order 2005" (RR(FS)O 2005)<sup>5</sup> requires the "Responsible Person" to undertake a fire risk assessment to ensure adequate fire precautions are provided and maintained by introducing a comprehensive and robust fire safety management system.













# 5. Supporting Drawings

The table provides a summary of the drawing information supplied that should be read as part of this fire strategy.

Drawing Title	Drawing Number	Date	Rev
Site Location Plan	1829 A - 001	Jan 2023	Α
Existing Site Survey	1829 A - 003	Jan 2023	Α
Existing Ground Floor Plan	1829 A - 100	Jan 2023	Α
Existing First Floor Plan	1829 A - 101	Jan 2023	Α
Proposed Ground Floor Plan	1829 A - 110	Nov 2023	D
Proposed First Floor Plan	1829 A - 111	Nov 2023	D
Proposed Roof Plan	1829 A - 112	Nov 2023	Е
Proposed Elevations 1 of 2	1829 A - 160	Mar 2023	С
Proposed Elevations 2 of 2	1829 A - 161	Nov 2023	С
Sections A	1829 A - 200	Nov 2023	В
Sections B	1829 A - 201	Mar 2023	В













## 6. Emergency Escape Strategy

The escape strategy adopted for this building is based on an immediate and simultaneous evacuation procedure.

When a fire occurs, the occupants alert other occupiers by way of manual call points, make their way out of the building and summon the fire and rescue service.

If a fire starts in an unoccupied area the automatic fire detection system will operate, this will result in all occupiers leaving the building and summoning the fire and rescue service.

The evacuation will be based on a rehearsed fire drill and managed by identified college staff.

# 6.1. Occupant Profile

The occupants of the building are awake, and familiar with the building, with the children being supervised at all times; any visitors will be always escorted through the building













# 7. Building Regulations compliance

#### 7.1. Means of warning and escape B1.

#### The requirement -

The building shall be designed and constructed so that there are appropriate provisions for the early warning of fire, and appropriate means of escape in case of fire from the building to a place of safety outside the building capable of being safely and effectively used at all material times.

#### The intention -

- a. There are sufficient means for giving early warning of fire to people in the building.
- b. All people can escape to a place of safety without external assistance.
- c. Escape routes are suitably located, sufficient in number and of adequate capacity.
- d. Where necessary, escape routes are sufficiently protected from the effects of fire and smoke.
- e. Escape routes are adequately illuminated, and exits are suitably signed.
- f. There are appropriate provisions to limit the ingress of smoke to the escape routes, or to restrict the spread of fire and remove smoke.

The extent to which any of these measures are necessary is dependent on the use of the building, its size and its height. Building work and material changes of use subject to requirement B1 include both new and existing buildings.

#### 7.1.1. Proposals

#### 7.1.1.1. Automatic Fire Detection System

The development consists of relatively small pre-prep school on the ground and first floor. It is proposed to fit automatic fire detection throughout the proposed redevelopment in accord with BS 5839 -16 Category L2, this will provide detection in the escape routes and all rooms leading onto the escape routes, as well as rooms of higher fire risk, where a fire is likely to start. This will ensure any fires are detected in the incipient stages of development and allow any occupiers sufficient time to make their escape.

#### 7.1.1.2. Means of Escape

The proposed means of escape are shown below with the routes marked by the use of the green arrows. The limitation on travel distances is 18 metres where there is only one direction and 45 metres where there is more than one direction available. The proposed layouts result in the travel distances being acceptable.





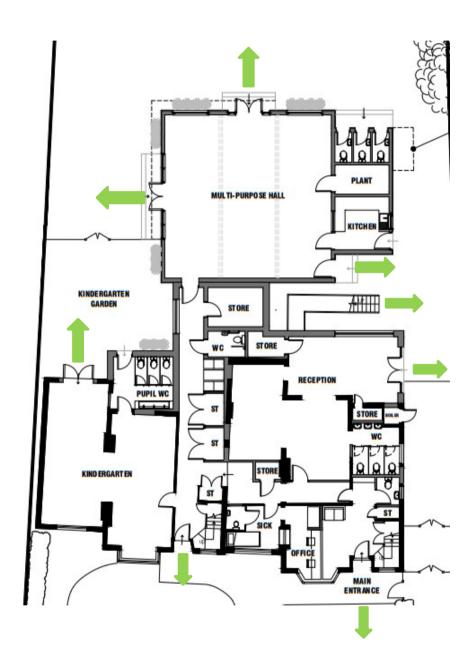








Figure 6: Means of escape Ground Floor







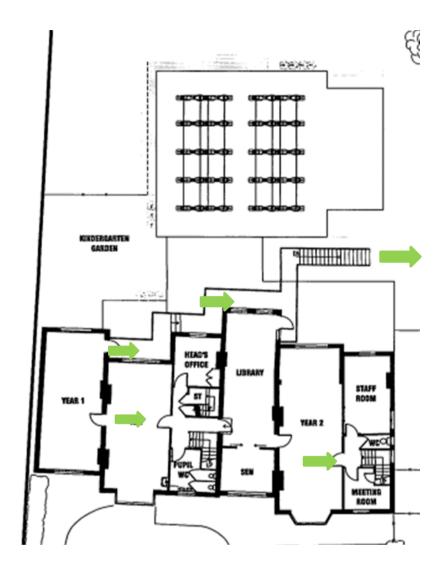






CY FireSafe MOT

Figure 7: Means of escape First Floor















The exit capacity for the development is in excess of any predicted occupancy for this type of venture consisting of small pre-prep school venues. It is reported there will be 90 students and 10 staff, with a total of 100 persons throughout the development.

Assuming an equal split across the floors this will result in approximately 50 persons on the ground floor and 50 persons on the upper floor.

The exit capacities are based on 750 mm doors (as a minimum size) providing capacity for 60, discounting an exit the capacities are in in excess of the requirements for the occupancies.

The new hall has an area circa 95 m<sup>2</sup> and assuming 1 metre per person the exit capacity after discounting the largest exit is satisfactory.

# 7.1.1.4. Stair capacities

The stairs are sized at a minimum of 1000 mm, a 1000 mm stair over one floor can accommodate up to 150 persons for simultaneous evacuation, therefore even discounting one stair will result in a capacity of 300 persons. As the upper floor (First floor) is likely to accommodate approximately 50 persons the vertical exit capacity is satisfactory.

#### 7.1.1.5. Emergency Lighting

The development will be provided with emergency lighting in accord with BS 5266<sup>7</sup>. Generally, emergency lighting should be provided to give adequate luminance near each exit door and where it is necessary to emphasise potential danger as outlined below:

- i. Exit doors intended to be used in an emergency
- ii Near stairs so each flight of stairs receives direct light
- Near any change in level
- iii. Mandatory emergency exits and safety signs
- iv. Changes of direction
- v. Intersection of corridors
- vi Outside each final exit
- . Near firefighting and first aid equipment.

# 7.1.1.6. Emergency Escape Signage

Fire escape signs are required for this proposal as there are some alternative escape routes available therefore staff, students and visitors should have clear indications as to their escape routes, by way of directional signs.

'Fire Door Keep Locked' signs should be provided to the doors to the risers and storerooms. Fire Action Notices should be provided to advise on the fire precautions inherent within the building and what to do in the event of a fire and reinforce the evacuation policy.

All signs should conform to BS 54998.













## 7.1.1.7. Manual Firefighting Equipment

Portable fire extinguishing appliances should be provided in areas where staff are likely to be working these should be provided following a fire risk assessment. Portable extinguishers should conform to BS 5306<sup>9</sup>.

The provision within the school facility should be determined following fit out and a suitable fire risk assessment, where the hazards and risks are known.

# 7.1.1.8. Fire Assembly Location

There is an area at the front of the school which is relatively secure and remote from the building. This area is proposed to be used for an evacuation assembly point, which has been confirmed by the school. The rear of the building is deemed to be not appropriate as it is not a place of ultimate safety.

The access to the assembly point is a minimum of 1050 mm and will be available in the event of a fire the gates will open in the direction of travel and are not locked in the event of a fire.













## The requirement -

- (1) To inhibit the spread of fire within the building, the internal linings shall—
  - (a) adequately resist the spread of flame over their surfaces; and
- (b) have, if ignited, either a rate of heat release or a rate of fire growth, which is reasonable in the circumstances.
- (2) In this paragraph "internal linings" means the materials or products used in lining any partition, wall, ceiling or other internal structure.

  Intention –

B2 is met by achieving a restricted spread of flame over internal linings. The building fabric should make a limited contribution to fire growth, including a low rate of heat release. The choice of materials for walls and ceilings can significantly affect the spread of fire and its rate of growth, even though they are not likely to be the item ignited first. It is particularly important in circulation spaces where rapid fire spread is more likely to prevent the escape of occupants that surface linings are restricted by limiting the surface spread of flames and minimising heat release rates.

The table outlines the requirement for internal linings in accordance with BS 476 or the European standard BS EN 13501-1 2002.

#### Classification of Internal Linings

Location	European Class
Other circulation spaces	B-s3, d2
Other rooms (including garages)	C-s3, d2
Small rooms of maximum internal floor area of 30 m <sup>2</sup>	D-s3, d2

## 7.2.1. Proposals

The development will comply with the requirements of surface spread of flame, by the use of a plasterboard or wet plaster application to block walls. These materials and finishes used in the construction will surpass the requirements of Table 7 of BB 100, as plasterboard surface spread of flame is better than B-s3,d2.











# 7.3. Internal fire spread (structure) B3.

The requirement -

- (1) The building shall be designed and constructed so that, in the event of fire, its stability will be maintained for a reasonable period.
- (2) A wall common to two or more buildings shall be designed and constructed so that it adequately resists the spread of fire between those buildings. For the purposes of this sub-paragraph a house in a terrace and a semi-detached house are each to be treated as a separate building.
- (3) Where reasonably necessary to inhibit the spread of fire within the building, measures shall be taken, to an extent appropriate to the size and intended use of the building, comprising either or both of the following—
  - (a) sub-division of the building with fire-resisting construction;
  - (b) installation of suitable automatic fire suppression systems.
- (4) The building shall be designed and constructed so that the unseen spread of fire and smoke within concealed spaces in its structure and fabric is inhibited.

Intention – requirement B3 is met by achieving all of the following.

- a. For defined periods, loadbearing elements of structure withstand the effects of fire without loss of stability.
- b. Compartmentation of buildings by fire resisting construction elements.
- c. Automatic fire suppression is provided where it is necessary.
- d. Protection of openings in fire-separating elements to maintain continuity of the fire separation.
- e. Inhibition of the unseen spread of fire and smoke in cavities, to reduce the risk of structural failure and spread of fire and smoke, where they pose a threat to the safety of people in and around the building.

The extent to which any of these measures are necessary is dependent on the use of the building and, in some cases, its size, and on the location of the elements of construction.

#### 7.3.1. Proposal

Compartmentation is fundamental to containing a fire in one part of a building. Modern construction methods can ensure compartmentation is achieved and maintained.

The compartment sizes of this building are such that additional compartments are not necessary if it is not to be sprinkler protected as it is not more than 800 m<sup>2</sup> from Table 9 of BB 100.

The compartmentation required should provide the prescriptive fire resistance and be in accord with Tables A1 and A2 of BB 100.

The compartmentation required assuming sprinkler protection is not provided throughout the building will be 60 minutes for the compartment floors and 60 minutes fire resistance for compartment walls. There will be a requirement for 30 minutes fire resistance to the stair enclosures and protected corridors / lobbies. Fire doors will be installed in accord with BB 100 Table C1. Any new floors will achieve the 60-minute requirement, existing floors will be assumed to be 60-minute construction. The new walls will achieve 30 minutes protection as there are no compartment walls. Windows and glazing leading on to escape routes will require 30-minute fire resistance, the areas will include reception on ground floor, art room, head office, library and year 2 on the first floor.









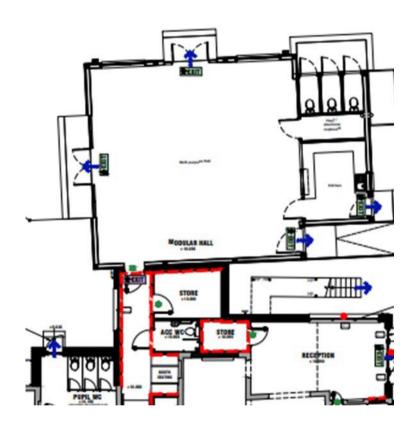


Typical compartmentation is shown on the sketches shown below, with 60 minutes fire resistance shown by red shading and 30 minutes fire resistance shown by blue shading. External routes should be protected to allow safe passage for means of escape.

60 minutes Red

30 minutes Blue





# 7.3.2. Protection of Openings and Fire Stopping

To ensure all fire separating elements are effective, every joint or imperfection of fit, or opening to allow services to pass through the element should be suitably fire stopped. Vertical service risers are to be enclosed in a fire protected shaft or fire stopped at each compartment floor level.

All openings for pipes, ducts, conduits or cables that pass through and / or any joints between fire separating elements should be appropriately fire stopped with consideration for any potential thermal movement of pipes and ducts.













Where non-rigid materials are adopted or unsupported spans of 100mm are used, then the fire stopping material should be reinforced with materials of limited combustibility.

# 7.3.3. Openings for Pipes

Where services pass through a fire separating element, the following three fire stopping measures should be considered to evaluate the most appropriate fire protection measure;

- i. Proprietary Seals; provide a system such as an intumescent collar which has been tested to maintain the fire resistance of the wall, floor for a pipe of any diameter.
- ii. Pipes with restricted diameter; if the pipe satisfies the requirement of the Table below, the fire stopping can be made from cement mortar or intumescent mastic around the pipe.
- iii. Sleeving; of lead, aluminium alloy, fibre cement or uPVC with dimensions as outlined in the Table below can be used.

### Maximum Diameter of Pipes Passing Through a Compartment

Situation	High Melting point materials	Lead, Aluminium alloy, uPVC, fibre cement	Any other material
Structure (but not a wall separating buildings) enclosing a protected shaft which is not a stairway or lift shaft.	160mm	110mm	40mm
Any other Situation	160mm	40mm	40mm













## 7.4. External fire spread B4.

## The Requirement -

- (1) The external walls of the building shall adequately resist the spread of fire over the walls and from one building to another, having regard to the height, use and position of the building.
- (2) The roof of the building shall adequately resist the spread of fire over the roof and from one building to another, having regard to the use and position of the building.

The building will be constructed to ensure a fire is unlikely to involve an adjacent building. This is achieved by restricting the unprotected area in an external wall. External walls should be constructed to achieve the classification requirements outlined in Table 12.1 of ADB. External walls should be constructed using a material that does not support fire spread and therefore endanger people in or around the building.

The new parts building appears to be reasonably (3.5 metres and 5.9 metres) remote from any adjacent buildings. External walls should be constructed to achieve the classification requirements outlined in Table 13 of BB 100, this results in single storey building more than 1000 mm from a boundary having no additional requirement, and as a single storey timber cladding at least 9 mm thick is acceptable. It is proposed to finish the external walls in brickwork, timber cladding 19 mm thick or, treated steel. All of these finishes will comply with the requirements of Table 13 and are therefore deemed to be satisfactory.













#### 7.5. Access and facilities for the fire service B5.

#### The requirement -

- (1) The building shall be designed and constructed so as to provide reasonable facilities to assist fire fighters in the protection of life.
- (2) Reasonable provision shall be made within the site of the building to enable fire appliances to gain access to the building.

#### Intention -

Provisions covering access and facilities for the fire service are to safeguard the health and safety of people in and around the building. Their extent depends on the size and use of the building. Most firefighting is carried out within the building. In the Secretary of State's view, that requirement B5 is met by achieving all of the following:

- a. External access enabling fire appliances to be used near the building.
- b. Access into and within the building for firefighting personnel to both:
  - i. search for and rescue people
  - ii. fight fire.
- c. Provision for internal fire facilities for firefighters to complete their tasks.
- d. Ventilation of heat and smoke from a fire in a basement.

### 7.5.1. Proposal

There is good access to the front façade of the building, with at least 15 % of the perimeter accessible.















## 7.5.2. Location and access to external water supply

All premises should be provided with a supply of water for firefighting. Firefighters must lay out hose between the water supply and the fire appliance, so these distances should be kept to a minimum.

Hydrants where necessary should be located in positions that are near to building entry points (including entry points to fire-fighting shafts containing fire mains) and fire appliance parking positions as follows:

- i. For buildings provided with dry fire mains, hydrants should be provided within 90 m of dry fire main inlets.
- ii. For buildings not provided with fire mains (or where the building is fitted with a wet fire main), hydrants should be provided within 90 m of an entry point to the building and not more than 90 m apart.

Water mains and hydrants should be capable of delivering a sufficient flow of water to enable effective firefighting to be undertaken. If the water supply takes the form of a static tank or dam, the capacity should be related to the size of the building and the risk involved. An unlimited and guaranteed natural water source providing the right quantities is also expected to be acceptable, subject to access and hardstanding for the fire appliances being provided.

The water supply should comprise of one or a combination of the following:

- i. hydrants provided by the water supply company on the street mains;
- ii. private hydrants designed and installed in accordance with BS 9990<sup>10</sup>, ideally forming part of a ring main system;
- iii. a static or natural water supply.

There has been no change to the provision of water supplies for firefighting purposes, with the closest hydrant located on Wensleydale Road, immediately outside the school entrance.

#### 7.6. Building Regulations Conclusion

The proposals appear to meet and exceed the functional requirements of the Building Regulations, in so much as the requirements B1 to B5 are satisfactory. This results in the building proposal exceeding the minimum requirements and therefore achieving the highest fire safety standards in accord with Policy D12.













# 8. Fire Safety Management

#### 8.1. Assessing Fire safety Management

Managing fire safety is addressed in BS 9999, the principles of fire safety management contained within BS 9999 can be considered best practice for managing fire safety. The standard of fire safety management required for a building is a critical component to be considered when determining how an emergency event involving fire will be dealt with.

#### 8.2. Considerations of fire safety management

- 1) Ensure a suitable and sufficient fire risk assessment is undertaken by a competent person.
- 2) Appoint a person to manage fire safety, they will be responsible for the general management, and should have the appropriate training.
- 3) Engage with all users of the building, outlining key messages on fire prevention, ensuring the security of the building. The use and storage of hazardous materials should be prohibited. What actions are required on the discovery of a fire and what the evacuation strategy means. What they need to do to safeguard escape routes, ensuring doors close correctly and are not wedged, held or tied open. Keeping common parts clear of combustibles and obstructions.
- 4) Fire Action Notices are a useful method of summarising the actions in the event of a fire and reinforcing the evacuation policy.
- 5) Controlling hazardous activities, the management should have procedures in place to ensure hazardous activities such as 'hot work' is controlled and a 'permit to work system' is adopted.
- 6) Inspection testing and maintenance; fire safety systems should be regularly tested and inspected. This will include fire doors, means of escape is kept fire sterile, emergency lighting systems, fire alarm systems, fire dampers where fitted.
- 7) Periodically inspect fire separating construction to ensure there are no breaches in fire compartmentation.
- 8) Maintain records to demonstrate the fire precautions are being regularly inspected and maintained.













#### 9. Conclusion

The features outlined within this document will ensure the current building is made safe in the event of a fire, with the high standards of fire safety incorporated into the design and to ensure compliance with the functional requirements of the building regulations.

There are some fundamental assumptions made within the scope of this document:

- (i) Policy D12 of the London Plan is achieved by demonstrating a high standard of fire safety commensurate with this type of proposal.
- (ii) There will be an assessment to determine the need for automatic fire sprinklers is undertaken.
- (iii) The development will have an automatic fire and detection system fitted to BS 5839 1 Category L2.
- (iv) Any breaches in compartments will be subjected to appropriate fire stopping.
- (v) All fire safety equipment will be subjected to routine inspection and servicing and will be maintained in accord with the manufacturers' requirements and the relevant British Standards as appropriate.
- (vi) A fire risk assessment will be conducted by a competent person on completion to ensure adequate levels of safety and to determine the emergency escape signage and portable firefighting equipment provision.













#### 10.References

- 1. BB 100 Building Bulletin 100 Design for Fire Safety in Schools.
- 2. Approved Document B Volume 2 Buildings other than dwellings 2019
- 3. BS 9999:2017 Code of Practice for fire safety in the design, management and use of buildings.
- 4. BS 7974 Application of fire safety engineering principles to the design of buildings.
- 5. Regulatory Reform (Fire safety) Order 2005
- 6. BS 5839 1 Fire detection and alarm systems for buildings: Part 1 Code of Practice for the design, installation, commissioning and maintenance of fire detection and fire alarm systems in non-domestic premises. 2017
- 7. BS 5266 Emergency Lighting Part 1 Code of Practice for the emergency lighting of premises. 2016
- 8. BS 5499 Safety Signs, Code of Practice for escape route signage 2013
- 9. BS 5306 3 Fire Extinguishing Installation and Equipment on Premises. Part 3: Commissioning and maintenance of portable fire extinguishers Code of Practice 2017.
- 10. BS 9990 Non-automatic firefighting systems in buildings Code of practice. 2015