RETROSPECTIVE FIRE STRATEGY REPORT

Flat 1-27 Elizabeth Court
Queen Street, Herne Bay, Kent, CT6 5BT

For	:	**Simon Hogben** Canterbury City Council
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Date	:	23rd September 2024

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Contents

Last Updated 23/09/2024: Version 1.0

✓ Denotes sections amended since last issue

Revision History

This Manual Section has been subject to a review and update as follows:

Revision Date	Version	Purpose of Revision	Revised by
23/09/2024	1.0	Initial report issue	DDS

Where individual sections have been reviewed and updated, these are indicated within the contents page, including Issue date and version number.

Section 1.0
Fire Strategy
Summary and Recommendations

Last Updated 023/09/204: Version 1.0

Section Contents

Appendices

Type	Ref	Description
Report	Annex 1	Approved Document B Volume 1 Dwellings 2019 incorporating 2020 and 2022 amendments – for use in England
Gvt Document	Annexe 1b	The Building Regulations 1965
Policy Document	Annex 2	Canterbury City Council Fire Safety Policy (Housing Assets)
Policy Document	Annex 3	Canterbury City Council Fire Risk Assessment Policy
FRA	Appendix 1.0	Fire Risk Assessment Report

Revision History

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1.1 Overview

This report documents the retrospective fire strategy for this building.

Full details of how to use this manual are set out in Section 14.0 at the rear of this folder.

The fire strategy outlines the details for the building and seeks to demonstrate how this meets compliance with relevant legislation and guidance (as detailed in Section 15.0).

The Fire Strategy Summary provides a simple overview of the fire safety provision within the building as detailed in this report.

The Recommendations section provides an overview of any recommendations made in Sections 3 to 13 of this report.

1.2. Fire Strategy Summary

Section	Description	Details
2.0 Building Overview	2.2. Location	Flats 1-27 Elizabeth Court Queen Street Herne Bay Kent CT6 5BT
	2.3. Building Description	Elizabeth Court 1 - 27 is a purpose-built general needs block of 27 flats over 7 floors. There are 3 flats on the ground floor and 4 flats on all other floors. There are two exits at ground floor level, one protected staircase and one passenger lift (Fireman's lift) serving all floors. There is an electrical intake and store cupboard on the ground floor accessed via external doors.
	2.4. Building Use	The property is used for general needs housing. The use within the building is classified under Approved Document B: Individual Flats and access corridors 1(a).
	2.5. Building Construction	The building is of a masonry and concrete structure, with a rendered external wall insulation system attached to the external elevations of the building. There are communal, stacked, inset, concrete balconies provided on both the North and South elevations of the building from the 1st to 6th floors. The internal walls, floors and protected staircase are of a solid construction. Approx 19.1m long x 18.5m wide. Max height 19.2m (7 storeys).
	2.6 Building Regulation Qualification	It is important to note that the original construction date of this building is believed to be in 1968, although exact confirmation has not been provided or evident at the time of this report. The author has assumed that the regulations in force at that time would have been the Building Regulations 1965. Throughout this report, the author has utilised current Building Regulations, specifically ADB 2019 (as amended 2020,2022), to assess the building's compliance with current requirements. However, in cases where there are significant structural differences between the building construction and current Building Regulations, the author has referenced the Building Regulations that were in force at the time of construction. The author also assumes that the building was constructed in accordance with the Building Regulations in force at the time and received appropriate approvals and authorisations. It is important to note that unless explicitly mentioned in this report, the author has not been provided with evidence to substantiate this assumption. Reference : https://www.legislation.gov.uk/ukpga/Geo6/10-11/41/contents

	2.7. Evacuation Strategy	The current evacuation strategy within the building is "Stay Put".
3.0 Means of Warning	3.1. Fire Warning and Fire Detection Systems Residential Apartments	The commissioning certificates (Appendix 4) confirms that all flats are fitted with fire detection to an LD3 standard which meets the requirements of ADB but not the requirements of BS5839 Part 6, however; i. At the time of the fire risk Assessment, it was found that Flat 21 was fitted with a mains wired heat detector in the kitchen and mains wired smoke detectors in the living room and the hallway. This meets the requirement of BS5839 Part 6 and exceeds the requirements of ADB. ii. On the previous FRA 17/01/2024, Flats 3, 14, 15, 24, 26 & 27 did not have a mains wired detector fitted in the hallway of the flat. Flat 18 only had a battery-operated smoke detector fitted in the living room. iii. On 30/04/2024 flat samples were undertaken and Flat 2 was found not to have any mains wired detection fitted within the living room. The arrangements within this building appear not to comply with the requirements within the flats and the additional detection requires further investigation & clarification.
	3.2. Fire Warning and Fire Detection Systems Communal Areas	Based on the FRA and a visual inspection as part of this strategy report inspection there appears to be an L1 category system in place but the commissioning certificate (Appendix 3) does not give a category. The fire panel is located in the front entrance lobby on the wall. There are hard wired detectors within the communal areas and ancillary accommodation. The cause-and-effect report (Appendix 2) states that the communal detection is linked to a heat detector and sounder behind each flat door, however the heat detector and sounder has been removed / disconnected (Appendix 9), therefore the cause-and-effect report is inaccurate. The cause & effect report provides contradictory information which would make the building non-compliant with requirements.
	3.3. Cause and Effect	i. The flats are fitted with mains wired smoke detectors, as per the commissioning certificate (Appendix 4). ii. As per the findings in Section 3.1, Flat 21 was inspected on the current FRA 18/09/2024 and can be confirmed as having detection fitted to an LD2 standard. On the previous FRA 17/01/2024, Flats 3, 14, 15, 24, 26 & 27 did not have a mains wired detector fitted in the hallway of the flat. Flat 18 only had a battery-operated smoke detector fitted in the living room. On 30/04/2024 flat samples

		were undertaken and Flat 2 was found not to have any mains wired detection fitted within the living room. iii. The property has a communal fire alarm system which appears to be of an L1 category fire alarm system. However, the cause-and-effect narrative states that the communal detection is linked to a heat detector and sounder behind each flat door. (Appendix 9) confirms the hard-wired heat detector in each flat and the sounder have been disconnected / removed. iv. The cause-and-effect narrative and the cause-and-effect table contradict each other the narrative states that the sounders in flats will sound if there is an alarm in the communal areas where as the cause and effect table has N/A.
4.0 Means of Escape	4.2. Travel Distances	The travel distances for the accommodations of the building are in accordance with the travel distances recommended in Approved Document B Volume 1
	4.3. Horizontal Exit and Escape	The horizontal exit and escape widths comply with the requirements of Approved Document B Volume 1.
	4.4. Vertical Exit and Escape	Although the width of the protected staircases does not meet the current width requirement of 1100mm as it is only 950mm wide it is acknowledged that it met the requirements of building regulations at the time of build and therefore is acceptable.
	4.5. Disabled Evacuation Means of Escape	The final exit doors from the property are level with the ground and will not impede disabled egress.
5.0 Internal Fire Spread	5.2. Internal Fire Spread (Linings)	On floors 1 – 6 above each meter cupboard there is a rendered area of wall which sounds hollow behind when tapped. It is believed that there could be insulation behind the rendered surface. This potential issue was also identified in the Structural Survey Section 6.11 (Appendix 5).
	5.3. Internal Fire Spread and Control (Structure)	The building is of a cast in-situ reinforced concrete frame, consisting of reinforced concrete walls and reinforced concrete floors. Due to the construction of the walls being concrete and brick the walls will provide fire resisting construction as follows: • protect means of escape (60 minutes) • enclose places of special fire hazard (60 minutes)
	5.4. Loadbearing Elements of Structure	• The building frame is of a concrete construction with a double masonry wall construction. • The staircase is of a concrete construction. • The floors within the building are of a concrete construction.
	5.5. Cavity barrier Protection	Cavity barrier provision within the building appears to comply with diagram 8.1 of Approved Document B Volume 1
	5.6. Fire Barriers and Stopping	Fire barriers - All voids at compartment wall locations are filled with fire stopping barriers in accordance with Approved Document B.
	5.7. Summary of Compartmentation	The fire-resistant partition provisions for this building comply with Tables B3 and B4 of Approved Document B Volume 1.

		All fire doors within the building appear to be nominal fire doors, compliance is detailed within the Fire Risk Assessment Report (Appendix 1).
6.0 External Fire Spread	6.2. External Wall Construction	(Appendix 6) Fire Risk Assessment of External Walls (FRAEW) completed February 2023 provides the following detail: External Walls The principle features of the external wall system at Elizabeth Court do not present a significant risk of fire spread over the façade. The majority of the outer finishes consist of non-combustible cement-based render providing an appropriate barrier against external fire source. The combustible polystyrene insulation is encapsulated with non-combustible materials to the external and internal surfaces and appears to have adequate compartmentation with fire breaks to floor level and party wall compartment lines. No fire barriers were observed to the perimeter of the façade openings (windows, doors vents) however, the PVC windows and doors appears to be set within the internal (masonry wall) opening, with the external reveals finished in non-combustible render, and the internal reveals being a plaster board finish. To the areas where acrylic render is installed to mineral wool insulation across the compartment floor level, the external wall system does not present a significant risk of fire spread. The existing build up is not known across the floor level compartment due to the possible presence of asbestos. Summary The external wall system as viewed in the sample locations within the external façade report appears to present an appropriate level of protection to suit a defend in place evacuation policy.
	6.3. Space Separation	The available boundary distance from all areas around the building is >7m.
	6.4. External Fire Spread Classification	(Appendix 6) Fire Risk Assessment of External Walls (FRAEW) completed February 2023 provides the following detail: FRAEW Summary: • The principle features of the external wall system at Elizabeth Court do not present a significant risk of fire spread over the façade. The majority of the outer finishes consist of non-combustible cement-based render providing an appropriate barrier against external fire source. The combustible polystyrene insulation is encapsulated with non-combustible materials to the external and internal surfaces and appears to have adequate compartmentation with fire breaks to floor level and party wall compartment lines. • No fire barriers were observed to the perimeter of the façade openings (windows, doors vents) however, the PVC windows and doors appears to be set within the internal (masonry wall) opening, with the external

		reveals finished in non-combustible render, and the internal reveals being a plaster board finish. • To the areas where acrylic render is installed to mineral wool insulation across the compartment floor level, the external wall system does not present a significant risk of fire spread. The existing build up is not known across the floor level compartment due to the possible presence of asbestos. It would be recommended to conduct an intrusive investigation to the internal junction behind the external wall system to assess the compartmentation of the properties. • Access for attending emergency services is good from each roadside elevation, and to the east elevation access is present across the grass area. It is likely that the fire service would be able to deploy in an acceptable time, and that the firefighting provisions within the building are sufficient to provide an adequate response to a fire. • The external wall system as viewed in the sample locations within the external façade report appears to present an appropriate level of protection to suit a defend in place evacuation policy. Fire Engineers Comments: • As the building was developed in 1968, it is anticipated that the relevant benchmark for fire safety standards at the time of construction would have been CP3 IV Part 1 (1962). This standard does not make comment on the fire performance of external wall materials. Fire performance of external wall materials did not come in to play until the implementation of the Building Act 1984. However, at this time the building construction was inherently safe, being represented by a masonry cavity wall and other non-combustible materials used on the external walls. • It appears that in 2014, additional works were commissioned to an install a rendered EPS system to the external wall façade. As is often the case with purpose built high-rise blocks of flats of that era, insulation was poor creating damp issues inside the flats, and the works were most likely commissioned to address this issue. The provision of additional materials would need to satisfy design guidance at the time of construction. • Paragraph 12.6 of ADB, 2006 (as amended) would not permit the provision of combustible insulation materials on buildings over 18m in height. In this regard, the insulation used on the rendered EPS system would not have satisfied design guidance at the time of installation, unless the wall system had successfully passed a BS 8414-1test to the criteria of BR 135. No such evidence has been produced for review.

	• As horizontal fire breaks are provided, vertical fire spread will likely be contained at compartment floor level without rapid development beyond the fire floor such that the fire service resources deployed in the initial pre-determined attendance for high-rise residential would be overwhelmed in the early stages of a fire. If vertical fire breaks are not provided, then the risk of lateral fire spread will be heightened in contrast, although the risk is not perceived to be unacceptably high. • An additional issue is that the rendered EPS wall system starts at ground floor level, meaning that an external fire could spread directly to impinge on the EPS insulation materials. However, the building perimeter is set-back from the roadway meaning that the impact of a vehicle fire on the external walls of the building is low, although arson cannot be precluded. In such an event the risk of lateral fire spread is heighted. The risk of vertical fire spread is normal. • Although the insulation is shielded from either side, the 7mm thick cement-based render would likely not satisfy the provisions for a 'thick' inorganic render described in section K.10 of PAS 9980. In this respect, it is unlikely that the risk rating would be neutral. As the EPS is applied directly onto the masonry substrate the risk of fire spread to the interior of the building by the wall configuration is not possible. As the façade openings sit inside the masonry cavity wall, fire spread is unlikely. • Secondary fires could originate above the fire floor from a flash-over fire inside a flat, although BR 135 demonstrates sufficient performance of horizontal fire breaks in rendered EPS wall systems. As such, vertical spread is not considered to present an unacceptable risk. As far as lateral fire spread is concerned, relevant guidance suggests that vertical fire breaks maybe required to provide fire compartmentalisation between adjoining rooms. The requirement and location of these fire breaks should meet Fire Officer/ Building Control specifications (BR 135: 2013). • Although this would not typically comply with the provisions set out in Diagram 33 of ADB, 2006 (as amended), it must be understood whether the absence of vertical fire breaks has arisen because of misinterpretation of relevant guidance by the installer or whether the design has been approved by building control. It must also be understood whether the system has passed a BS 8414-1 test. The provision of vertical fire breaks is reasonable but further investigation should confirm whether this is an approved system design and whether the actual risk outweighs the cost of the works and associated disruption to the building.
6.5. Roof Coverings	The roof is flat in construction.

		The method of construction would not assist with any fire development with the roof.
	6.6. Roof Classification at Junction of Compartment Wall to Roof	The arrangements within this building comply with the requirements of ADB Volume 1.
7.0 Smoke Management	7.1. Means of escape Ventilations	At the top of the protected staircase there are two AOV's at roof level which provide adequate venting of the staircase. In each flat lobby 1st to 6th floors there are AOV's fitted which opens into the open communal balconies on both the North and South elevations of the building. These AOV's will give adequate venting to the flat lobbies.
8.0 Sprinkler System	None fitted.	
9.0 Emergency Lighting	9.1. Emergency Lighting Systems	Maintained Emergency Lighting throughout. However, there was no visible emergency lighting provided within the front right externally entered resident storage area.
10.0 Signage	10.1. Escape Signage	Escape signage is provided above storey exits and final exit doors from the common areas, within the residential and ancillary accommodation.
	10.2. Other Signage	The arrangements within this building comply with the above requirements with the correct fire door, extinguisher and no smoking signage displayed as confirmed and reviewed within the Fire Risk Assessment Report
	10.3. Wayfinding Signage	This is detailed within Section 12.4
11.0 First Aid Fire Fighting	11.1. Manual Fire Fighting Equipment	Suitable portable fire extinguishers are provided in the building in accordance with the recommendations of BS 5306-8[11.41].
12.0 Access and Facilities for the Fire and Rescue Service	12.1 a) Hydrant and Water Supply Access	Main hydrant approx. 9.5m away from the dry riser inlet to Elizabeth Court 1 - 27 located on the pavement directly in front of the rear entrance door to the building on King's Road. Secondary hydrant approx. 42m away from the dry riser inlet to Elizabeth Court 1 – 27 located on the pavement at the junction of Beach Street / King's Road.
	12.1 b) External Fire Service Vehicle Access	Fire vehicle access to the building is provided: The building can be accessed from the South side of the property via King's Road from both directions. The building can also be accessed from the North side of the building from Queen Street. Access to Queen Street is from either King's Road or Beach Street. All the entrances to this building are accessible within 45m from a suitable pump appliance parking location. The fire service vehicle access arrangements meet the minimum requirements in tables 26 and 27 detailed in Section 12.8.
	12.2 Internal Fire Service Firefighting Access	The arrangements within this building broadly comply with the requirements of ADB with the exception of the fact that there is no separate Fire Fighting shaft, it is a protected stair, and the lift is not a Firefighting lift (it is a Fireman's lift).

	12.3 Ventilation for Fire Fighting	The applicable smoke venting requirements for the above ground floor levels are discussed in detail as part of the Means of Escape (Section 3.0) and Smoke Management (Section 7.0)
	12.4 Wayfinding Signage	The correct wayfinding signage displayed as confirmed and reviewed within the Fire Risk Assessment Report.
	12.5 Emergency Response Pack (ERP)	Whilst there was an Emergency Response Pack located in the SIB, the information on residents with mobility, cognitive or sensory impairment(s) is missing.
	12.6 Premises/Secure Information Box	There is a PIB located on the wall by the fire alarm panel at the front entrance to the building. There was an Emergency Response Pack located in the SIB.
	12.7 Emergency Power Supply	Each life safety system provided within the building has an independent power supply that would operate in the event of a failure of the main supply, within the individual specification limits. Design of the emergency power supply strategy is in accordance with BS 8519 and includes a secondary supply of the following components / systems: • Automatic Opening Vents & Mechanical Smoke Venting Systems (where applicable), • Fire alarm systems, • Emergency lights and signs.
13.0 Fire Safety Management	13.1. General Management Information	Canterbury City Council have a fully documented fire safety management system as follows; • Annex 2 - Canterbury City Council Fire Safety Policy (Housing Assets) • Annex 3 –Canterbury City Council Fire Risk Assessment Policy For the purpose of this fire strategy document, the contents of these Canterbury City Council policy documents have not been repeated as the reader should refer to these as appropriate. However, the contents of each Annex are summarised as follows: • Annex 2 - Canterbury City Council Fire Safety Policy (Housing Assets) This policy will be used by all to ensure understanding of the obligations placed upon CCC to maintain a safe environment for tenants and employees within the homes of each tenant, and within all communal areas of buildings and 'other' properties owned and managed (offices, commercial shops, depots, etc.). (Ref Page 4, Section 2.4) CCC has a diverse housing asset portfolio which consists of sheltered schemes, hostels and general needs blocks. There are also a small number of previously non-housing related buildings which have been converted into housing. (Ref Page 4, Section 2.5) The objective of the policy is to set out how CCC will manage fire safety. The detail on how this will be done is set out in the Procedure for Fire Safety, which is a separate document. (Ref Page 4, Section 2.6) • Annex 3 – Canterbury City Council Fire Risk Assessment Policy

		The policy is relevant to all Canterbury employees, tenants, contractors and other persons or other stakeholders who may work on, occupy, visit, or use its premises, or who may be affected by its activities or services. (Ref Page 2, Section 2.4) It should be used by all to ensure they understand the obligations placed upon Canterbury to maintain a safe environment for tenants and employees within the homes of each tenant, and within all communal areas of buildings and 'other' properties owned and managed (offices, commercial shops, depots, etc.). (Ref Page 2, Section 2.5) Risk assessment – Canterbury will establish and maintain a risk assessment for fire safety management and operations. This risk assessment will set out the organisation's key fire safety risks together with appropriate mitigations. (Ref Page 7, Section 7.1)
	13.2. Management Arrangements	Management arrangements, roles and responsibilities are clearly set out within the policy referred to above. Compliance with Management arrangements is monitored and reviewed as part of the Fire Risk Assessment programme.
	13.3 Fire Risk Assessment Arrangements	This property has a fire risk assessment in place (Appendix 1) which is subject to regular review and management action as appropriate. The fire risk assessments are carried out by a BAFE SP205 Life Safety fire risk assessment Approved contractor
	13.4. Evacuation Arrangements	The evacuation strategy requirements and provisions required within this building are clearly set out within Annex 2 referred to above. Details of the building category and evacuation strategy are recorded in Section 2.0 Building Overview of this fire strategy report. This property has a fire risk assessment in place (Appendix 1) which is subject to regular review and management action as appropriate, this focusses on the use of this building, evacuation strategy and means of warning and escape.

1.3 Recommendations

The following recommendations have been made to address issues raised within this Fire Strategy manual;

Section	Description	Recommendation
3.0 Means of Warning	3.1. Fire Warning and Fire Detection Systems Residential Apartments	Canterbury City Council are to survey all flats to establish what the level of detection is in each flat. Canterbury City Council should upgrade all flats to an LD2 standard as per BS5839 Part 6 requirements.
	3.2. Fire Warning and Fire Detection Systems Communal Areas	Canterbury City Council are to arrange for a new cause and effect survey to be carried out to confirm the actions of the fire alarm system, and address any recommendations made to ensure that the system meets L1 requirements.
	3.3. Cause and Effect	Canterbury City Council are to follow the recommendations in Section 3.1 & 3.2 above
4.0 Means of Escape		None
5.0 Internal Fire Spread	5.2. Internal Fire Spread (Linings)	Canterbury City Council are to follow the recommendations in the Structural Survey Section 6.11.
	5.4. Loadbearing Elements of Structure	There Author acknowledges that there are a number of recommendations within the Structural Survey, these should all be followed through.
6.0 External Fire Spread	6.4. External Fire Spread Classification	Canterbury City Council are to carry out the recommendations in the FRAEW.
7.0 Smoke Management		None
8.0 Sprinkler System		None
9.0 Emergency Lighting	9.1. Emergency Lighting Systems	Canterbury City Council are to arrange for emergency lighting to be fitted in the front right externally entered resident storage area.
10.0 Signage		None
11.0 First Aid Fire Fighting		None
12.0 Access and Facilities for the Fire and Rescue Service	12.5 Emergency Response Pack (ERP)	Canterbury City Council are to update the ERP to ensure it has the following: ➢ information on residents with mobility, cognitive or sensory impairment(s); Canterbury City Council are to consider commissioning third party reviews of the contents within the PIB to ensure that it is up to date and meets the requirements of The NFCC Code of Practise.
13.0 Fire Safety Management		None

Section 2.0
Building Overview

Last Updated 23/09/2024: Version 1.0

Section Contents

Appendices

Type	Ref	Description
Report	Annex 1	Approved Document B Volume 1 Dwellings 2019 incorporating 2020 and 2022 amendments – for use in England
Gvt Document	Annexe 1b	Building Regulations 1965
Policy Document	Annex 2	Canterbury City Council Fire Safety Policy (Housing Assets)
Policy Document	Annex 3	Canterbury City Council Fire Risk Assessment Policy
FRA	Appendix 1	Fire Risk Assessment Report

Revision History

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2.1 Introduction

Elizabeth Court 1 - 27 is a purpose-built general needs block of 27 flats over 7 floors. There are 3 flats on the ground floor and 4 flats on all other floors. There are two exits at ground floor level, one protected staircase and one passenger lift (Fireman's lift) serving all floors.
There is an electrical intake and store cupboard on the ground floor accessed via external doors.

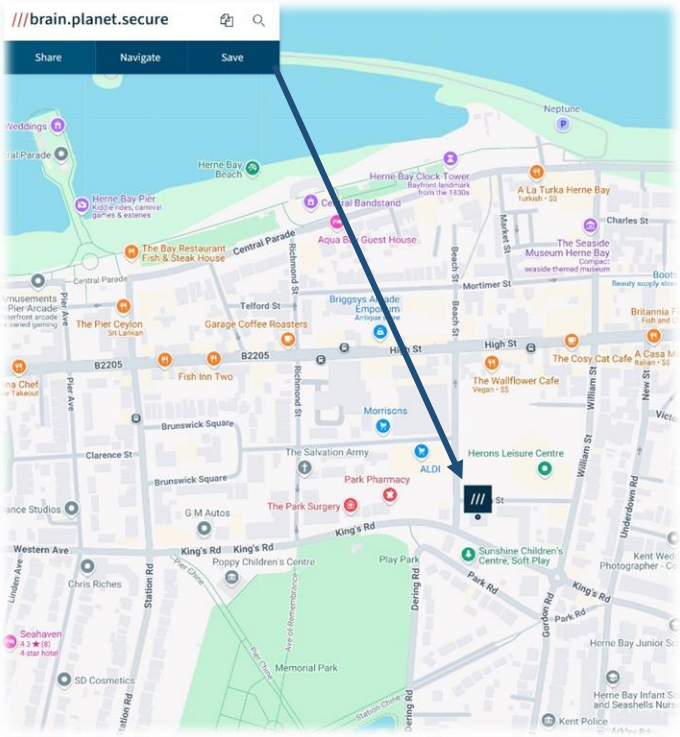
2.2. Location

Elizabeth Court 1 – 27 is located in the centre of Herne Bay, approximately 150m South of the High Street.

Property address is:
Flats 1-27
Elizabeth Court
Queen Street
Herne Bay
Kent
CT6 5BT

To help find Elizabeth Court you can use what3words.com for the precise location. Every 3m square has been given a unique combination of three words: a what3words.com address.

Diagram 1 : *what3words locations*



Property Access

The property is accessed from Queen Street and King's Road for pedestrians. Vehicles can park to the South side of the property on King's Road, to the North side of the property on Queens Street there are double yellow lines which prohibit parking.

Diagram 2 : *Pedestrian and vehicular access*

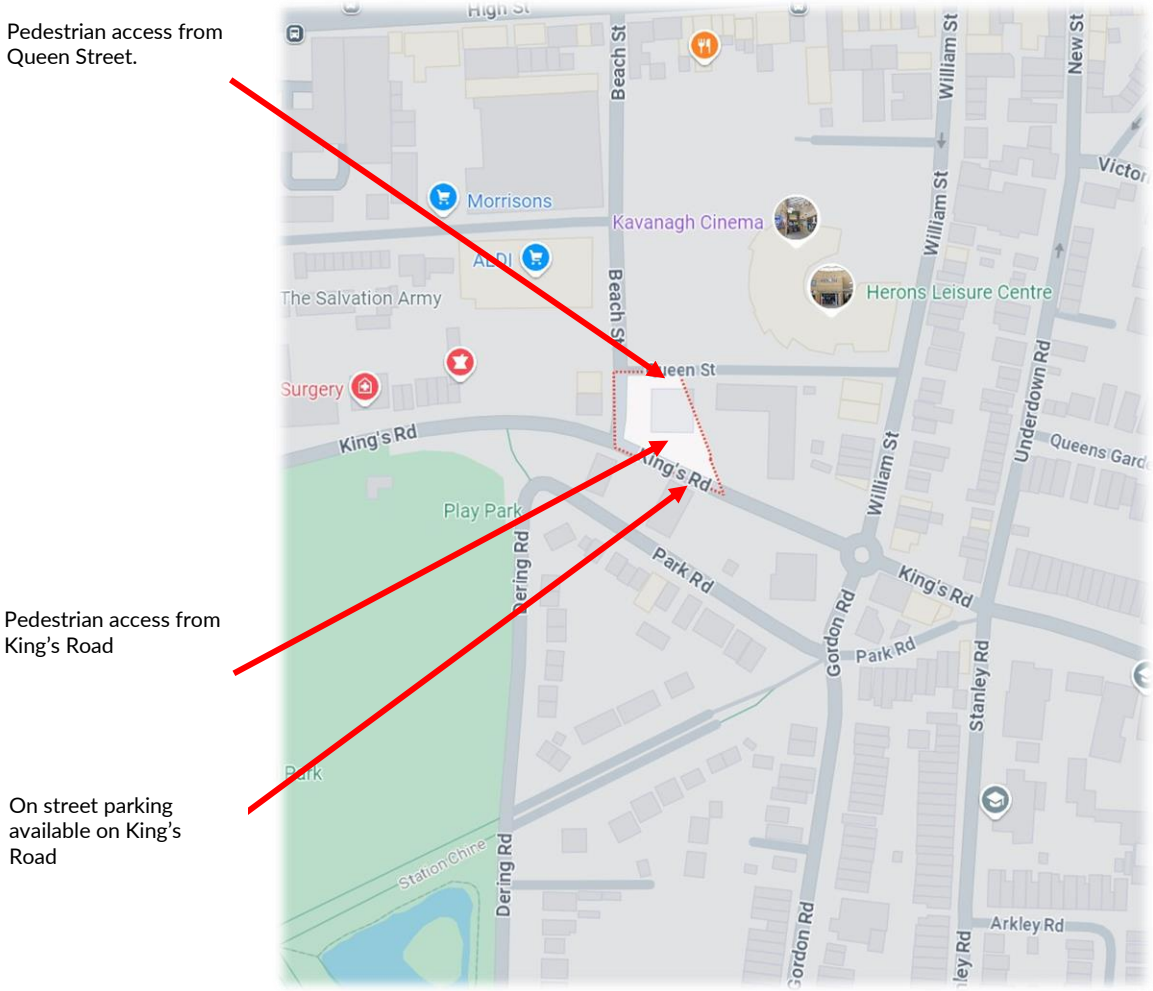
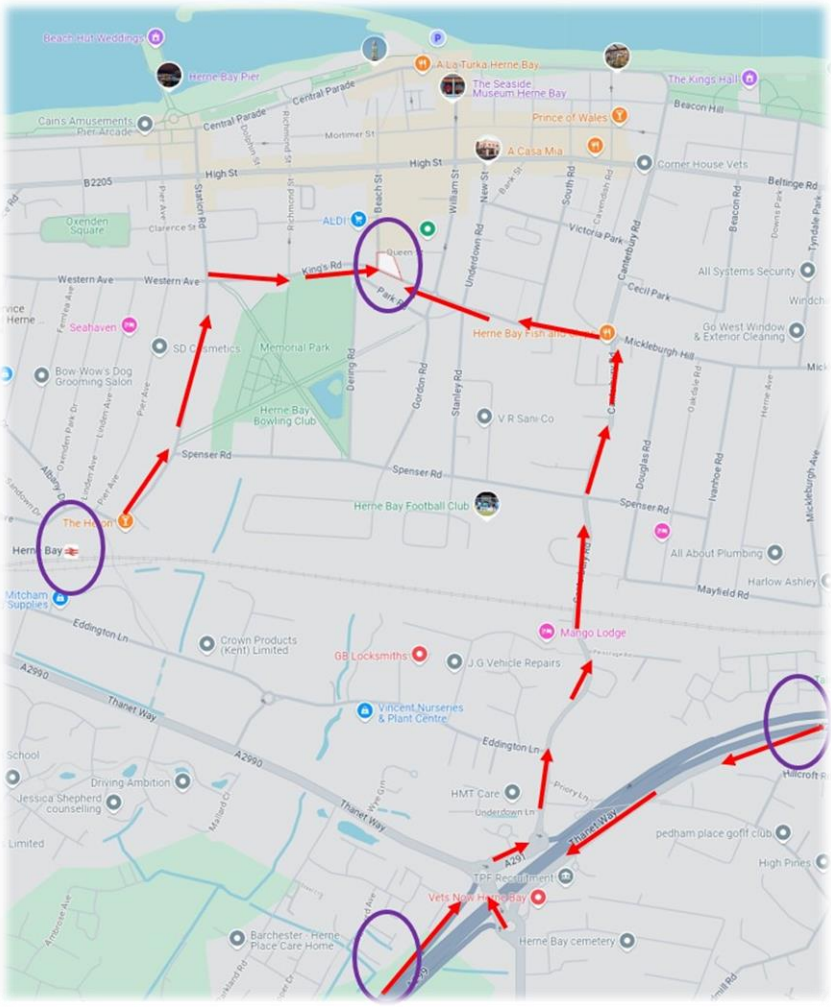


Diagram 3 : *Getting to Elizabeth Court 1 - 27:*

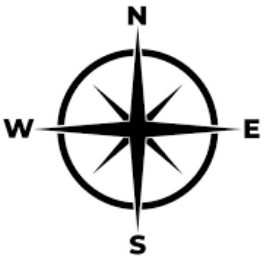


- *From the London bound direction, At the A299 / A291 junction leave the A299 via the slip road: At the A291 roundabout take the 3rd exit, at the next roundabout take the 2nd exit, at the next roundabout take the 1st exit onto Canterbury Road A291 and follow the Canterbury Road in a Northerly direction for 1000m. At the Canterbury Road / Mickleburgh Hill / King's Road roundabout take the 1st exit onto King's Road and follow King's Road for 450m and on the right is Elizabeth Court 1 – 27.*

- *From the Coast bound direction, At the A299 / A291 junction leave the A299 via the slip road: At the A291 / Thanet Way roundabout, take the 2nd exit and at the next roundabout take the 1st exit onto Canterbury Road and follow the Canterbury Road in a Northerly direction for 1000m. At the Canterbury Road / Mickleburgh Hill / King's Road roundabout take the 1st exit onto King's Road and follow King's Road for 450m and on the right is Elizabeth Court 1 – 27.*

- *From Herne Bay Trian Station on foot: Follow Station Road in a Northerly direction for 500m until you come to King's Road. Turn right onto King's Road and follow King's Road in a Easterly direction for 345m and on your left is Elizabeth Court 1 – 27.*

Diagram 4 : *Access and egress points.*



- To the North side of the property is the main entrance door to the building from Queen Street.
- To the South side of the property is the rear entrance door to the property from King's Road.

2.3 Building Description

Building Overview

Elizabeth Court 1 - 27 is a purpose-built block of 27 flats over 7 floors. There are 3 flats on the ground floor and 4 flats on all other floors. There are two exits at ground floor level, one protected staircase and one passenger lift (Fireman's lift) serving all floors.
There is an electrical intake and store cupboard on the ground floor accessed via external doors.

Upon entry via the rear door this leads directly into an entrance lobby containing 2 flats located to LHS and RHS, going through a cross-corridor door leads into a central lobby area containing access to stairs and lift. Passing through another cross-corridor door gives access to front exit and 1 further flat to RHS.

All upper levels are accessed via the protected staircase or lift which open into a flat lobby containing 4 flats,

Ground Floor
> Flats numbers 1, 2 & 3.
> Access to Stairs to upper floors.
> Access to Lift.
> Rear Exit.
> Mains electrical intake room (accessed from outside to the LHS of the building).
> AOV smoke control panel.
> Main Fire alarm panel.
> Riser cupboard. (on stairs landing)
> Dry riser intake.
> Electrical cupboard under the stairs.

First Floor
> Flats numbers 4, 5, 6, 7.
> Access to Stairs to upper and lower floors.
> Access to Lift.
> AOV smoke control panel.
> Dry riser
> Communal balconies to front and rear.

Second Floor
> Flats numbers 8, 9, 10, 11.
> Access to Stairs to upper and lower floors.
> Access to Lift.
> AOV smoke control panel.
> Dry riser
> Communal balconies to front and rear.

Third Floor
> Flats numbers 12, 13, 14, 15.
> Access to Stairs to upper and lower floors.
> Access to Lift.
> AOV smoke control panel.
> Dry riser
> Communal balconies to front and rear.

Fourth Floor
> Flats numbers 16,17,18, 19.
> Access to Stairs to upper and lower floors.
> Access to Lift.
> AOV smoke control panel.
> Dry riser
> Communal balconies to front and rear.

Fifth Floor
> Flats numbers 20, 21, 22, 23.
> Access to Stairs to upper and lower floors.
> Access to Lift.
> AOV smoke control panel.
> Dry riser
> Communal balconies to front and rear.

Sixth Floor
> Flats numbers 24, 25, 26, 27.
> Access to Stairs to upper and lower floors.
> Access to Lift.
> AOV smoke control panel.
> Dry riser
> Communal balconies to front and rear.

Roof level
> Lift motor room
> Access door leading to roof.
> Lift motors and equipment.

External
> Building stands on the corner of Kings Rd and Beech Street with paved areas on three sides and a shared garden area to the right side containing resident stores, door to main intake room and grassed seating areas.
> There are small, grassed areas on all sides of the building enclosed by a low hedge.
> There appears to be an emergency generator to the Beech Street side of the building in a timber enclosure which is locked and cannot be accessed.
> Residents storage cupboards to the Queens Street side of the building by the entrance. There is a door to the right side of the front entrance area that opens into an area where there are residents sheds.

Roof Voids
> There is no loft hatch access within the communal area as flat roof construction.
> The roof can be accessed through the lift motor room.

Roof Void Access
Flat roof so no roof void, however hatch on 7th floor by lift gives access to the lift motor room and there is a door opening onto the roof.

Electrical
> There is an external main intake room accessed externally to the right side of the building.
> There is an electrical cupboard under the protected staircase at ground floor level.

Gas
> No communal gas supply present.
> Each flat has its own independent supply. There are flues in the external walls from flats indicating that there are independent gas supplies in flats.

Fire Hydrant
There are fire hydrants provided as follows:
> Located on the junction of Beach Street and Kings Road.
> Located on the footpath to the King's Road entrance to the building.

2.4 Building Use

This building is a high-rise purpose-built block of flats. Used for General Needs Accommodation.

The use and number of floors are shown in the table below.

Table 1 – Cores and Accommodation

Type of Accommodation	Floor Level	Height of Top Floor
Residential	Ground floor to 6th floor.	19.2m*

* Building height has been taken from the FRA as per diagram D6 of Approved Document B.

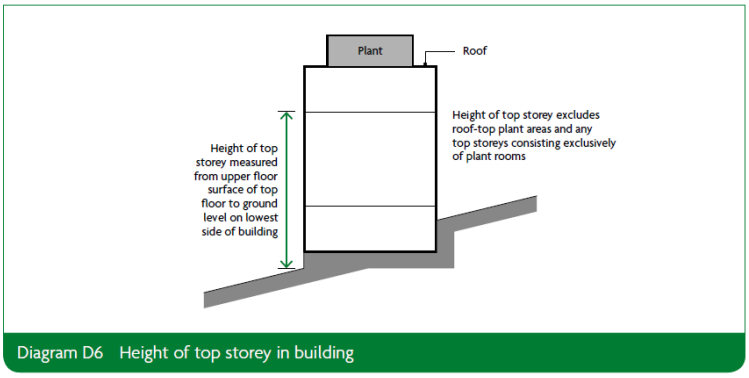


Diagram D6 Height of top storey in building

The different uses within the building are classified into the following purpose groups under Approved Document B:

Table 2 – Purpose Groups

Accommodation	Purpose Group
Individual Flats and access corridors	1 (a)

2.5 Building Construction

The building is of a masonry and concrete structure, with a rendered external wall insulation system attached to the external elevations of the building.

There are communal, stacked, inset, concrete balconies provided on both the North and South elevations of the building from the 1st to 6th floors.

The internal walls, floors and protected staircase are of a solid construction.

Approx 19.1m long x 18.5m wide. Max height 19.2m (7 storeys).

2.6 Building Regulation Qualification

It is important to note that the original construction date of this building is believed to be in 1968, although exact confirmation has not been provided or evident at the time of this report. The author has assumed that the regulations in force at that time would have been the Building Regulations 1965.

Throughout this report, the author has utilised current Building Regulations, specifically ADB 2019 (as amended 2020,2022), to assess the building's compliance with current requirements. However, in cases where there are significant structural differences between the building construction and current Building Regulations, the author has referenced the Building Regulations that were in force at the time of construction.

The author also assumes that the building was constructed in accordance with the Building Regulations in force at the time and received appropriate approvals and authorisations. It is important to note that unless explicitly mentioned in this report, the author has not been provided with evidence to substantiate this assumption.

Reference : https://www.legislation.gov.uk/ukpga/Geo6/10-11/41/contents

2.7 Evacuation Strategy

The current evacuation strategy is ‘Stay Put’.

This is confirmed within Appendix 1 Fire Risk Assessment Report.

Section 3.0
Means of Warning

Last Updated 23/09/2024: Version 1.0

Section Contents

Appendices

Type	Ref	Description
Report	Annex 1	Approved Document B Volume 1 Dwellings 2019 incorporating 2020 and 2022 amendments – for use in England
Policy Document	Annex 2	Canterbury City Council Fire Safety Policy (Housing Assets)
Policy Document	Annex 3	Canterbury City Council Fire Risk Assessment Policy
British Standard	Annex 3	BS: 5839 Part 1
British Standard	Annex 4	BS: 5839 Part 6
FRA	Appendix 1	Fire Risk Assessment Report
Report	Appendix 2	Cause and Effect Report
Report	Appendix 3	Fire Alarm Commissioning Certificate
Report	Appendix 4	Flats Fire Detection Commissioning Certificate
Report	Appendix 8	Previous Fire Risk Assessment Report dated 17/01/2024
Email	Appendix 9	Email from Canterbury City Council 27/07/2023

Revision History

This manual section has been subject to a review and update as follows:

Revision Date	Version	Purpose of Revision	Revised by
23/09/2024	1.0	Initial report issue	DDS

3.1. Fire Warning and Fire Detection Systems Residential Apartments

a. Requirements

The fire alarm and smoke detection within the individual flats as per Approved Document B Volume 1 should be a minimum of an LD3 system. As these flats are tenanted BS 5839 Part 6 states the fire alarm system should be of an LD2 Standard as for existing buildings.

System requirements;

i. Each dwelling should be supplied with a single sounder / smoke detector in the internal lobby, with additional heat detector in the kitchen area. The principal habitable room is to be provided with smoke detection.
ii. Coverage of a heat detector will be limited to 5.3m radial coverage, while smoke detector coverage will be limited to 7.5m radial coverage. BS 5839 Part 6 mounting parameters should be adhered to.
iii. The sounder must be capable of delivering 75dB(A) at the bed head in each room and be hard wired with a self-contained battery backup.

b. Arrangements within this building

The commissioning certificates at Appendix 4 confirms that all flats are fitted with fire detection to an LD3 standard which meets the requirements of ADB but not the requirements of BS5839 Part 6, however;

i. At the time of the fire risk Assessment, it was found that Flat 21 was fitted with a mains wired heat detector in the kitchen and mains wired smoke detectors in the living room and the hallway. This meets the requirement of BS5839 Part 6 and exceeds the requirements of ADB.
ii. On the previous FRA 17/01/2024, Flats 3, 14, 15, 24, 26 & 27 did not have a mains wired detector fitted in the hallway of the flat. Flat 18 only had a battery-operated smoke detector fitted in the living room.
iii. On 30/04/2024 flat samples were undertaken and Flat 2 was found not to have any mains wired detection fitted within the living room.

The arrangements within this building do not comply with the above requirements within the flats and the additional detection requires further investigation & clarification.

<u>Recommendation</u>

i. Canterbury City Council are to survey all flats to establish what the level of detection is in each flat.
ii. Canterbury City Council should upgrade all flats to an LD2 standard as per .BS5839 Part 6 requirements.

3.2. Fire Warning and Fire Detection Systems Communal Areas

a. Requirements

The communal areas should be provided with an L1 Standard fire alarm system in high-risk communal areas in accordance with BS 5839 Part 1.

System requirements;

i. Systems installed throughout all areas of the building. The objective of a Category L1 system is to offer the earliest possible warning of fire, to achieve the longest available time for escape.
ii. In the event of a detected fire, the lift should failsafe to the access floor position, in accordance with BSEN81 Part 73. Should a fire originate at access floor level, the lift will stop at the adjacent level to the access floor. Doors will failsafe to open upon final position.

b. Arrangements within this building

i. Based on the FRA and a visual inspection as part of this strategy report inspection there appears to be an L1 category system in place but the commissioning certificate (Appendix 3) does not give a category.
ii. The fire panel is located in the front entrance lobby on the wall.
iii. There are hard wired detectors within the communal areas and ancillary accommodation.
iv. The cause-and-effect report (Appendix 2) states that the communal detection is linked to a heat detector and sounder behind each flat door, however the heat detector and sounder has been removed / disconnected as per Appendix 9. So the cause and effect report is innacurate.

The arrangements within this building appear to comply with the above requirements however the cause & effect report provides contradictory information which would make the building non compliant with requirements

Recommendation

i. Canterbury City Council are to arrange for a new cause and effect survey to be carried out to confirm the actions of the fire alarm system, and address any recommendations made to ensure that the system meets L1 requirements

3.3. Cause and Effect

a. Requirements

Based on the above, the following fire alarm cause and effect principles that this building should have in place are summarized below;

Accommodation	*Fire Alarm System*	*Cause*	*Effect*
Residential accommodation – flats	*Minimum LD3 system – ADB Vol 1 or LD2 system – BS 5839 Part 6*	*Single smoke /heat detector activated within apartment*	• *Alarm sounds throughout the affected flat, invoking immediate evacuation.* • *Interlinked heat detectors in each flat alarm on the fire alarm panel but do not trigger any sounders in the communal areas or any other flat.*

Residential accommodation – common areas	*L1 zoned smoke system – BS 5839 Part 1*	*Single smoke detector activated within the communal areas on each floor.*	• *Lifts will ground (unless the smoke is detected at ground floor, in which case the lift will go to the alternative floor)* • *Security doors override.* • *Door retainers release.*

b. Arrangements within this building

i. The flats are fitted with mains wired smoke detectors, as per the commissioning certificate (Appendix 4).

ii. As per the findings in Section 3.1, Flat 21 was inspected on the current FRA 18/09/2024 and can be confirmed as having detection fitted to an LD2 standard. On the previous FRA 17/01/2024, Flats 3, 14, 15, 24, 26 & 27 did not have a mains wired detector fitted in the hallway of the flat. Flat 18 only had a battery-operated smoke detector fitted in the living room. On 30/04/2024 flat samples were undertaken and Flat 2 was found not to have any mains wired detection fitted within the living room.

iii. The property has a communal fire alarm system which appears to be of an L1 category fire alarm system. However, the cause-and-effect narrative states that the communal detection is linked to a heat detector and sounder behind each flat door. Appendix 9 confirms the hard-wired heat detector in each flat and the sounder have been disconnected / removed.

iv. The cause-and-effect narrative and the cause and effect table contradict each other the narrative states that the sounders in flats will sound if there is an alarm in the communal areas where as the cause and effect table has NA.

The arrangements within this building do not appear to comply with the above requirements.

Recommendation

Canterbury City Council are to follow the recommendations in Section 3.1 & 3.2

Section 4.0
Means of Escape

Last Updated 23/09/2024: Version 1.0

Section Contents

Appendices

Type	Ref	Description
Report	Annex 1	Approved Document B Volume 1 Dwellings 2019 incorporating 2020 and 2022 amendments – for use in England
Policy Document	Annex 2	Canterbury City Council Fire Safety Policy (Housing Assets)
Policy Document	Annex 3	Canterbury City Council Fire Risk Assessment Policy
FRA	Appendix 1	Fire Risk Assessment Report

Revision History

This manual section has been subject to a review and update as follows:

Revision Date	Version	Purpose of Revision	Revised by
23/09/2024	1.0	Initial report issue	DDS

4.1 General Principles

The general philosophy for the means of escape of occupants, is that there is satisfactory means of giving warning of a fire, and travel distances (normally in a single direction) are limited.
The principles of an escape strategy are that in the event of fire, people can turn their back on exposure to a fire and make their way to a place of intermediate safety (e.g. a protected route or stair core) without additional assistance from other occupants or firefighters. A place of intermediate safety must always give direct access to a place of ultimate safety (e.g. ground (access) level at the front of the building) and escaping occupants should then be freely available to move away from the building to a place of final safety.

4.2 Travel Distances

a. Requirements

The travel distances of the building are in accordance with the travel distances recommended in Approved Document B Volume 1, as indicated in the table below:

Table 1 - Travel Distances Common Areas

Purpose Group	Accommodation	Travel Within	Maximum Travel Distance	
			1 direction	1+ direction
1 (a) Residential	Apartments	Protected hallway	9m	N/A
	Common areas	Common areas/corridor	7.5m	30m

Travel Distances Within Flats

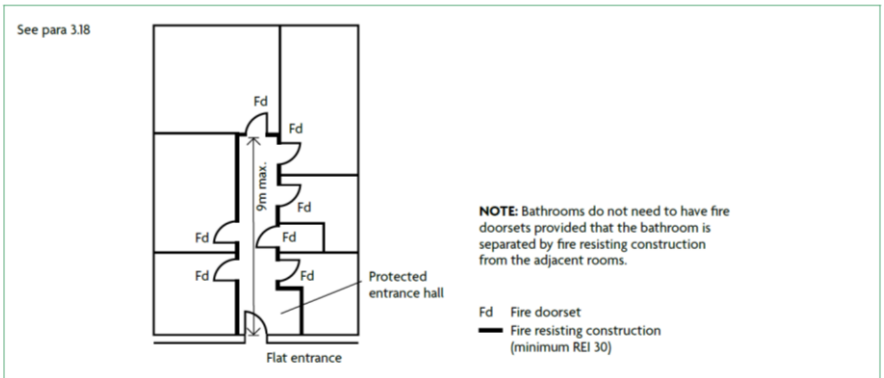


Diagram 3.2 Flat where all habitable rooms have direct access to an entrance hall

b. Arrangements within this building

The arrangements within this building comply with the above requirements.

Travel Distances Common Areas
The travel distances within communal areas from flat entrance door to common stair or stair lobby are ≤ 30m for escape in more than one direction or ≤ 7.5m for escape in a single direction.

Travel Distances Within Flats
The travel distances within the flats comply with Diagram 3.2 from Approved Document B Volume 1 above.

4.3 Horizontal Exit and Escape

a. Requirements

The requirements of horizontal exit widths depend on the type of the accommodation, size of accommodation, and subsequent type of evacuation policy adopted.

The general recommendations are described in diagram D1 of Approved Document B, i.e., clear width between door stop and projecting ironmongery (for doors ≤90° opening) or door width between door stop and door leaf (for doors ≥90° opening).

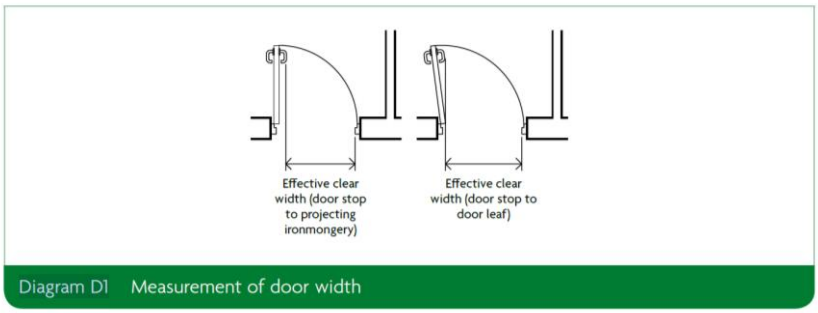


Diagram D1 Measurement of door width

b. Arrangements within this building

The arrangements within this building comply with the above requirements.

Minimum escape widths

All cross-corridor doors and lobby doors within the building are above the minimum width required by Approved Document B Volume 1.

Corridors (protected)

Common corridors serving different occupancies on the same storey are enclosed in 30-minute fire-resisting construction with FD30S fire doors.

Height of escape routes

Minimum of 2m (excluding doorways).

4.4. Vertical Exit and Escape

a. Requirements

The requirements of vertical exit widths depend on the type of accommodation and subsequent type of evacuation strategy adopted.

Residential Accommodation

The staircase and exit widths for the residential accommodation should be in accordance with the table below.

Similar to the horizontal evacuation policy for the residential accommodation, as the occupancy is 54 persons, the following vertical escape guidance should also be used.

Building Area	Minimum exit width	Comment
Protected staircase	1100mm[1]	Protected staircase
Flat lobby / staircase doors	750mm	Maintained protected egress route
Final means of escape door front and rear	800mm	2 final exits available

[1]Assuming the handrails do not protrude more than 100mm into the stair (Approved Document B: Appendix C)

b. Arrangements within this building

The width of the staircases do not comply with the requirements in the table above. See table below for actual widths compared to minimum widths: above.

Building Area	Actual exit width	Comment
Protected staircase	950mm	Protected staircase
Front entrance	1000mm	Final exit door
Rear entrance	1000mm	Final exit door
Lobby doors	790mm	Minimum width of lobby doors in the building

Although the width of the protected staircases does not meet the current width requirement of 1100mm as it is only 950mm wide it is acknowledged that it met the requirements of building regulations at the time of build and therefore is acceptable.

4.5. Disabled Evacuation Means of Escape

a. Requirements

Final exits should not present a barrier for disabled people, where the route to a final exit does not include stairs, a level threshold and, where necessary, a ramp should be provided.

b. Arrangements within this building

The final exit doors from the property are level with the ground and will not impede disabled egress.

The arrangements within this building comply with the above requirements.

Section 5.0
Internal Fire Spread

Last Updated 23/09/2024: Version 1.0

Section Contents

Appendices

Type	Ref	Description
Report	Annex 1	Approved Document B Volume 1 Dwellings 2019 incorporating 2020 and 2022 amendments – for use in England
Policy Document	Annex 2	Canterbury City Council Fire Safety Policy (Housing Assets)
Policy Document	Annex 3	Canterbury City Council Fire Risk Assessment Policy
FRA	Appendix 1	Fire Risk Assessment Report
Report	Appendix 5	Structural Survey

Revision History

This manual section has been subject to a review and update as follows:

Revision Date	Version	Purpose of Revision	Revised by
23/09/2024	1.0	Initial report issue	DDS

5.1. Purpose

The purpose of limiting internal fire spread is to restrict the growth and spread of fire by restricting certain locations with low rates of surface spread of flame, and in some cases, low rates of heat release.

The choice of materials used for wall and ceiling construction can significantly impact the spread of fire growth and is particularly important in primary circulation spaces where linings may offer the principal medium for fire spread to adversely impact the occupant escaping.

In addition, restrictions made to the internal fire spread and control can play a crucial part in the protection of firefighters in critical areas to maintain limited materials for ignitability and flammability.

5.2. Internal Fire Spread (Linings)

a. Requirements

For the purposes of this document, the internal surface and linings do not apply to the upper surface of floors and stairs, as these will not contribute to the adverse spread of flame during occupant evacuation.

However, general internal spread requirements (subsequent section), refers to control of areas for firefighting activities.

Doors, door frames, window frames and frames in which the glazing is fitted, architraves and skirting are also exempt from these limitations.

The walls and ceilings should meet the classifications shown in the table below in accordance with Approved Document B Volume 1 (Table 4.1).

Table 9 (Table 4.1 – Classification of linings ADB Volume 1)

Location	**Class of lining** **European Class[2]**
Small rooms of area: • $4m^2$ in residential accommodation • Garages (as part of a dwelling/house) of maximum internal floor area of $40m^2$	D-s3, d2
Other rooms (including garages)	C-s3, d2
Circulation spaces within dwellings	
Other circulation spaces (including the common areas of blocks of flats)	B-s3, d2
NOTE: Wallcoverings which conform to **BS EN 15102**, achieving at least class C-s3, d2 and bonded to a class A2-s3, d2 substrate, will also be acceptable	

b. Arrangements within this building

On floors 1 – 6 above each meter cupboard there is a rendered area of wall which sounds hollow behind when tapped. It is believed that there could be insulation behind the rendered surface. This potential issue was also identified in the Structural Survey Section 6.11 (Appendix 5).
The arrangements within this building do not comply with the above requirements.

Recommendations
Canterbury City Council are to follow the recommendations in the Structural Survey Section 6.11.

5.3. Internal Fire Spread and Control (Structure)

a. Requirements

Schedule 1 of the Building Regulations requires the following functional requirements to be met in respect of B5 Internal Fire Spread (Structure):

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) The walls common to two or more buildings shall be designed and constructed so that it adequately resists the spread of fire between those buildings.

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.

b. Arrangements within this building

The building is of a cast in-situ reinforced concrete frame, consisting of reinforced concrete walls and reinforced concrete floors.

Due to the construction of the walls being concrete and brick the walls will provide fire resisting construction as follows:

- protect means of escape (60 minutes)
- enclose places of special fire hazard (60 minutes)

The arrangements within this building comply with the above requirements.

5.4 Loadbearing Elements of Structure

a. Requirements

Elements such as structural frames, beams, columns, loadbearing walls (internal and external), floor structures and gallery structures should have, as a minimum, the fire resistance given in Table B3 of ADB Volume 1.

Appendix B to ADB Volume 1 includes further guidance on all the following.

a. Provisions to ensure that where one element of structure supports or stabilises another element of structure, the supporting element has no less fire resistance than the other element (see Table B4 ADB Volume 1).
b. Measures so that elements common to more than one building or compartment are constructed to the standard of the more onerous of the relevant provisions.
c. Special provisions about fire resistance of elements of structure in single storey buildings. Concessions in respect of fire resistance of elements of structure in basements where one or more sides of the basement are open at ground level.

b. Arrangements within this building

The arrangements within this building appear to comply with the above requirements.

- The building frame is of a concrete construction with a double masonry wall construction.
- The staircase is of a concrete construction.
- The floors within the building are of a concrete construction.

<u>Recommendation</u>

- There Author acknowledges that there are a number of recommendations within the Structural Survey, these should all be followed through.

5.5. Cavity Barrier Protection

a. Requirements

Cavity barrier protection outlines the requirements for the restriction of smoke and flames through sub-dividing cavities, for the purpose of either cavities representing a potential pathway for spread of fire to impact on means of escape and firefighters, or extensive cavities signifying possibly unseen fire spread.

The key areas that require cavity barriers are as follows:

- At the junction between an external cavity wall and a compartment wall that separates buildings. (Please refer to Section 6.0 for External Fire Spread)
- At the top of such an external cavity wall.
- At the junction between an external cavity wall and every compartment floor / other compartment wall.
- At the junction between an internal cavity wall and every compartment floor, compartment wall, or other wall or door assembly that forms a fire resisting barrier.
- In a protected escape route, above and below any fire resisting construction that is not carried full storey height.
- On the line of compartment walls abutting the external wall.
- At the edges of cavities (including around openings, i.e. windows and doors)

Cavity barrier provision is designed with regard to diagram 8.1 of Approved Document B Volume 1, as represented in the figure below.

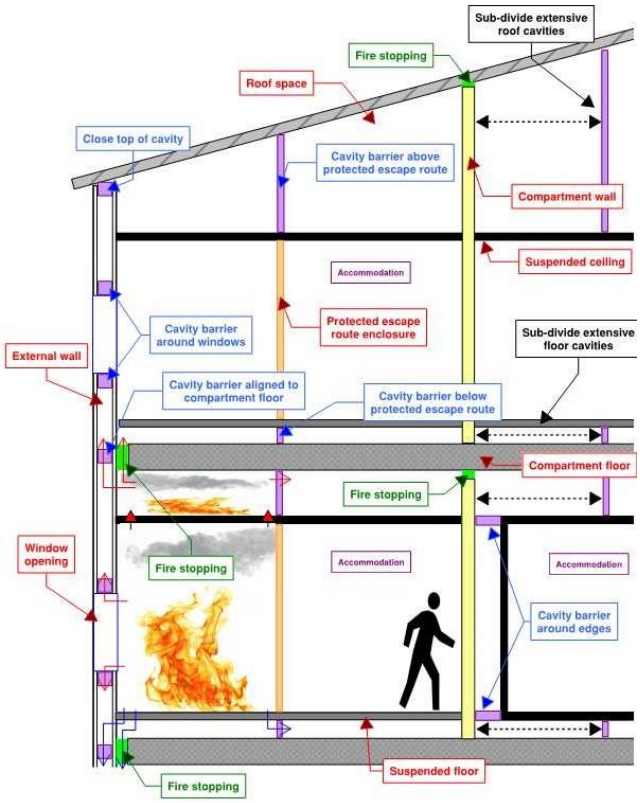


Table 14 – Cavity barrier Provisions

Location of cavity	Class of surface/product exposed in cavity (excluding the surface of any pipe, cable or conduit or any insulation to any pipe)		Maximum dimension in any direction
	National class	European class	
Any cavity	Class 1	Class A1	
		Class A2 – s3, d2	
		Class B – s3, d2	10m
		Class C – s3, d2	
	Not Class 1	Not any other above class	

In the event that larger cavities are required, a summary of the necessary provisions is discussed below:

Table 15 – Larger cavity Fire Provisions

Approved Document B
A) The room and the cavity together are compartmented from the rest of the building.
B) An automatic fire detection and alarm system meeting the relevant recommendations of BS 5839 Part 1 is fitted in the building (however detectors are not required in the cavity – subject to void protection under BS 5839 Part 1).
C) The cavity is used as a plenum and the recommendations about re-circulating air distribution systems in BS 9999 are followed.
D) The surface of the ceiling exposed in the cavity is **Class 1** and the supports and fixings in the cavity are non-combustible construction.
E) The flame spread rating of any pipe insulation system is **Class 1.**
F) Any electrical wiring in the void is laid in metal trays, or in metal conduit.
G) Any other materials in the cavity are of limited combustibility.

The cavity barriers provide a 30-minute fire rating (i.e., 30 minutes integrity and 15 minutes insulation).

Cavity barriers in a stud wall / partition or provided around openings, appear to be formed using construction materials (rather than specified products) of the following:

- Steel at least 0.5mm thick.
- Timber at least 38mm thick.
- Mineral wool (compressed).
- Calcium silicate / cement based / gypsum-based boards at least 12mm thick.

Cavity barriers are fitted under compression or mechanically fixed in position.

Further information on fire barriers (excluding cavity barrier applications) is covered in the subsequent section.

b. Arrangements within this building

The arrangements within this building appear to comply with the above requirements.

In the service cupboards there was evidence of cavity barriers being in place.

5.6. Fire Barriers and Stopping

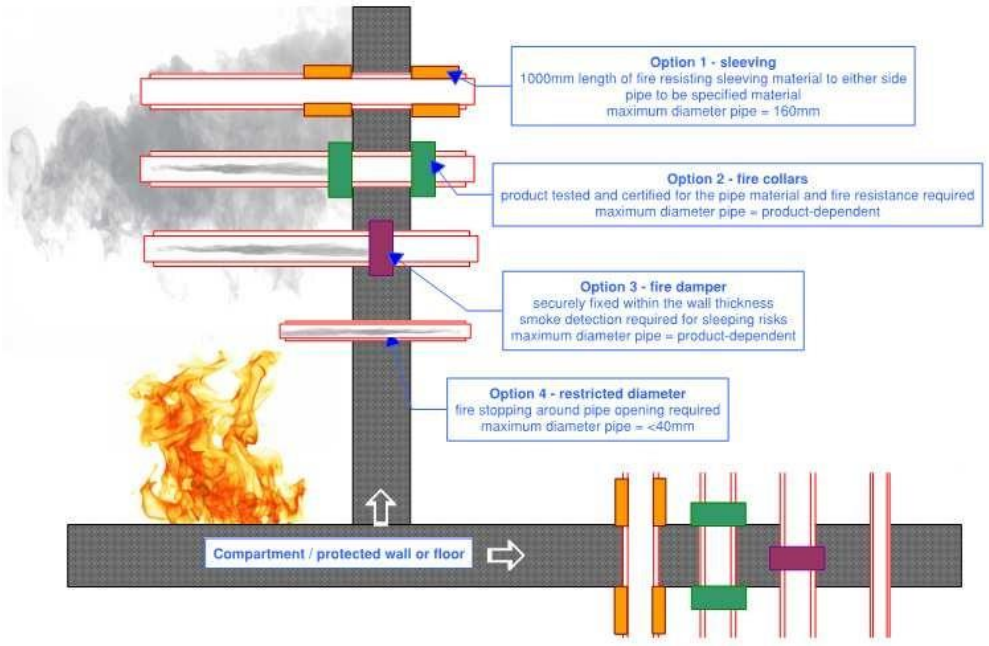
a. Requirements

Dissimilar to cavity barrier protection, fire stopping requirements are specified to maintain the fire compartmentation of the wall or floor in which it resides. Therefore, the fire resistance of the material/product specified must achieve the fire resistance required for the associated compartment line it protects. Every joint to another element, imperfection of fit, or opening to allow services to pass through, must be adequately protected by sealing or fire stopping so that the resistance of the element is not impaired.

Any openings for services (exceeding a dimension set out in Table 9.1 of Approved Document B shown below) breaching compartment walls are fire stopped (unless protected throughout their entire length with fire resistant material) in accordance with Section 9 of Approved Document B, as outlined in the following:

- **Option 1 – Sleeving**: A pipe of lead, aluminium (or ally), uPVC or fibre cement, with a maximum nominal diameter of 160mm and fire-resistant sleeving on both sides of the associated wall, of not less than 1000mm. Sleeving (or non-combustible pipe) to be in contact with the service pipe.
- **Option 2 – Fire Collars (propriety sealing)**: A service pipe (of any material and nominal diameter) with a specified product, certified for the application used to maintain the resistance of the compartment line.
- **Option 3 – Fire Dampers**: Securely fixed, automatic fire rated damper within the service opening, that will close in the event of a fire (thermally actuated devices). Smoke detection-actuation.
- **Option 4 – Restricted Internal Diameter**: Maintains the opening as small as practically possible, given the pipe material used as per table 16, with appropriate fire stopping material around the service opening.

Typical representation of fire stopping to service penetrations is shown in the figure below:



This is primarily to prevent the passage of fire and assist in retarding the movement of smoke across the lines of compartmentation.

Table 9.1 – Fire Stopping Provisions

Table 9.1 Maximum nominal internal diameter of pipes passing through a fire-separating element

Situation	Pipe material and maximum nominal internal diameter (mm)		
	(a) High melting point metal[1]	(b) Lead, aluminium, aluminium alloy, uPVC,[2] fibre cement	(c) Any other material
1. Structure (but not a wall separating buildings) enclosing a protected shaft that is not a stair or a lift shaft	160	110	40
2. Compartment wall or compartment floor between flats	160	160 (stack pipe)[3] 110 (branch pipe)[3]	40
3. Wall separating dwellinghouses	160	160 (stack pipe)[3] 110 (branch pipe)[3]	40
4. Wall or floor separating a dwellinghouse from an attached garage	160	110	40
5. Any other situation	160	40	40

NOTES:

1. Any metal (such as cast iron, copper or steel) which, if exposed to a temperature of 800°C, will not soften or fracture to the extent that flame or hot gas will pass through the wall of the pipe.
2. uPVC pipes that comply with either **BS 4514** or **BS 5255**.
3. These diameters are only in relation to pipes that form part of an above-ground drainage system and are enclosed as shown in Diagram 9.1. In other cases, the maximum diameters given for situation 5 apply.

Products used for fire stopping and sealing systems are certified as tested in the application intended. However, general fire stopping materials have also been used:

- Cement mortar
- Gypsum-based plaster
- Cement-based or gypsum-based vermiculite or perlite mixes
- Glass fibre, crushed rock, blast furnace slag or ceramic-based products
- Intumescent mastics

b. Arrangements within this building

The arrangements within this building appear to comply with the above requirements.

Fire barriers - All voids at compartment wall locations are filled with fire stopping barriers in accordance with Approved Document B.

5.7. Summary of Compartmentation

a. Requirements

The summary of the fire-resistant partition provisions required for this building are shown in the table below in accordance with Tables B3 and B4 of Approved Document B Volume 1:

Fire Resistance of Partitions

<table>
<tr><th>Minutes</th><th colspan="2">Building Area</th><th>Exposure</th></tr>
<tr><td rowspan="8">60</td><td rowspan="3">Protected stair shafts</td><td>Staircase enclosure</td><td rowspan="10">Each side separately</td></tr>
<tr><td>Access onto stairs</td></tr>
<tr><td>Protected lobbies</td></tr>
<tr><td colspan="2">Lift Shaft</td></tr>
<tr><td colspan="2">Service riser</td></tr>
<tr><td colspan="2">Compartment floor</td></tr>
<tr><td colspan="2">Apartment enclosures</td></tr>
<tr><td colspan="2">Common corridor enclosures</td></tr>
<tr><td rowspan="2">30</td><td colspan="2">Residential apartment entrance hall</td></tr>
<tr><td colspan="2">Sterile lobby division partitions/cross-corridor door partition</td></tr>
</table>

The summary of the fire-resistant door provisions required for this building are shown in a table below in accordance with Table C1 of Approved Document B Volume 1:

Fire Resistance of Doors Provisions

<table>
<tr><th>Fire Door</th><th colspan="2">Location</th><th>Device</th></tr>
<tr><td rowspan="5">FD30s</td><td rowspan="3">Protected stairs</td><td>Stair enclosure</td><td rowspan="3">Self-closers required</td></tr>
<tr><td>Access onto protected stair shaft</td></tr>
<tr><td>Stair lobbies</td></tr>
<tr><td colspan="2">Service risers accessed from sterile areas</td><td>No self-closers required</td></tr>
<tr><td colspan="2">Common corridor sterile lobbies</td><td>Self-closers required</td></tr>
<tr><td>FD30</td><td colspan="2">Lift shaft</td><td>N/A</td></tr>
<tr><td>FD30s</td><td colspan="2">Common corridor (subdivision)</td><td></td></tr>
</table>

b. Arrangements within this building

The arrangements within this building comply with the above requirements.

All fire doors within the building appear to be nominal fire doors, compliance is detailed within the Fire Risk Assessment Report (Appendix 1).

Section 6.0
External Fire Spread

Last Updated 23/09/2024: Version 1.0

Section Contents

Appendices

Type	Ref	Description
Report	Annex 1	Approved Document B Volume 1 Dwellings 2019 incorporating 2020 and 2022 amendments – for use in England
Policy Document	Annex 2	Canterbury City Council Fire Safety Policy (Housing Assets)
Policy Document	Annex 3	Canterbury City Council Fire Risk Assessment Policy
FRA	Appendix 1	Fire Risk Assessment Report
Report	Appendix 5	Structural Survey
Report	Appendix 6	Fire Risk Assessment of External Walls (FRAEW)

Revision History

This manual section has been subject to a review and update as follows:

Revision Date	Version	Purpose of Revision	Revised by
23/09/2024	1.0	Initial report issue	DDS

6.1. General Principles

The design for external walls, extent of unprotected facades (per associated compartment) and roof classification can play a key part in restricting the severity of fire spread, either across the external fascia of the building, or onto a neighbouring boundary line/building.

6.2. External Wall Construction

a. Requirements

The external envelope of the building should not be a medium for fire spread as per Approved Document B.

External walls considered as loadbearing to the primary structure of the building, should achieve a fire rating equivalent to the element of structure's fire resistance value for the associated building (unless forming an unprotected area).

Schedule 1 of the Building Regulations 2010 requires the following functional requirements to be met in respect of B4 - External Fire Spread:

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 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.*

b. Arrangements within this building

The arrangements within this building do not comply with the above requirements for the following reasons;

Appendix 6 Fire Risk Assessment of External Walls (FRAEW) completed February 2023 provides the following detail:

<u>External Walls</u>
The principle features of the external wall system at Elizabeth Court do not present a significant risk of fire spread over the façade. The majority of the outer finishes consist of non-combustible cement-based render providing an appropriate barrier against external fire source. The combustible polystyrene insulation is encapsulated with non-combustible materials to the external and internal surfaces and appears to have adequate compartmentation with fire breaks to floor level and party wall compartment lines. No fire barriers were observed to the perimeter of the façade openings (windows, doors vents) however, the PVC windows and doors appears to be set within the internal (masonry wall) opening, with the external reveals finished in non-combustible render, and the internal reveals being a plaster board finish.

To the areas where acrylic render is installed to mineral wool insulation across the compartment floor level, the external wall system does not present a significant risk of fire spread. The existing build up is not known across the floor level compartment due to the possible presence of asbestos.

<u>Summary</u>
The external wall system as viewed in the sample locations within the external façade report appears to present an appropriate level of protection to suit a defend in place evacuation policy.

6.3. Space Separation

a. Requirements

Any extent of the cross-sectional area of a compartment along the external wall line is an unprotected area for external fire spread, unless provided with fire resistance for example the external brickwork. For the purpose of this assessment, external walls of protected shafts (the protected stairs, considered as sterile areas) are excluded.

The extent of the requirements of fire resistance in the Initial calculations have been carried out for the required boundary distances and achieved boundary distances, based on the largest compartment/façade the worst-case scenario is calculated for each elevation. The assessment and extent of fire resistance can then be replicated for all remaining compartments representing a concern of external fire spread.

The assessment follows the guidance of BRE Guide BR 187. The calculations and figures below detail the results.

Arrangements within this building
Following BR 187, each compartment façade relates to an enclosing compartment (multiple of 3m) with a required distance to the relevant boundary.

Unprotected external areas

Façade	*Actual size (W x H)*	*Enclosing size (W x H)*	*Required boundary distance (with100 % unprotected openings)*	*Available boundary distance*[2]	*Acceptable maximum %of unprotected openings*	*Extent of fire resistance required*[3]
Residential accommodation						
North	*1 x 1 x 3*	*18.5 x 3*	*7m*	*>9*	*100% permitted*	*No fire resistance required*
South	*1 x 1 x 4*	*18.5 x 3*	*7m*	*>7*	*100% permitted*	*No fire resistance required*
East	*2 x 1 x 2* *1 x 1 x 4*	*19.1 x 3*	*7m*	*>8*	*100% permitted*	*No fire resistance required*
West	*2 x 1 x 2* *1 x 1 x 4*	*19.1 x 3*	*7m*	*>13*	*100% permitted*	*No fire resistance required*

Consideration has also been given to external fire unprotected areas which are governed by the height and width of the compartment and the distance from the compartment to the relevant boundary line. This forms an assessment of the likelihood of fire spread to occur to buildings on an adjacent site, spread via adjacent unprotected openings, where the facades abut to another accommodation.

The arrangements within this building comply with the above requirements.

6.4. External Fire Spread Classification

a. Requirements

The final external surface of the external walls is of a spread of flame classification, to adhere to Approved Document B, represented in the following table.

Table 18 External wall Classifications

Building height1	Boundary distance	Minimum external wall classification
<11m	>1.0m	No restriction
	<1.0m	Class B-s3, d2 (European Class) or better
≥11m	>1.0m	Class A2-s1, d0 (European Class) or better
	<1.0m	Class A2-s1, d0 (European Class) or better

1Measured from ground to mean roof level as per Approved Document B

b. Arrangements within this building

The arrangements within this building do not comply with the above requirements for the following reasons.

Appendix 6 Fire Risk Assessment of External Walls (FRAEW) completed February 2023 provides the following detail:

FRAEW Summary:

- The principle features of the external wall system at Elizabeth Court do not present a significant risk of fire spread over the façade. The majority of the outer finishes consist of non-combustible cement based render providing an appropriate barrier against external fire source. The combustible polystyrene insulation is encapsulated with noncombustible materials to the external and internal surfaces and appears to have adequate compartmentation with fire breaks to floor level and party wall compartment lines.

- No fire barriers were observed to the perimeter of the façade openings (windows, doors vents) however, the PVC windows and doors appears to be set within the internal (masonry wall) opening, with the external reveals finished in non-combustible render, and the internal reveals being a plaster board finish.

- To the areas where acrylic render is installed to mineral wool insulation across the compartment floor level, the external wall system does not present a significant risk of fire spread. The existing build up is not known across the floor level compartment due to the possible presence of asbestos. It would be recommended to conduct an intrusive investigation to the internal junction behind the external wall system to assess the compartmentation of the properties.

- Access for attending emergency services is good from each roadside elevation, and to the east elevation access is present across the grass area. It is likely that the fire service would be able to deploy in an acceptable time, and that the firefighting provisions within the building are sufficient to provide an adequate response to a fire.

- The external wall system as viewed in the sample locations within the external façade report appears to present an appropriate level of protection to suit a defend in place evacuation policy.

Fire Engineers Comments:

- As the building was developed in 1968, it is anticipated that the relevant benchmark for fire safety standards at the time of construction would have been CP3 IV Part 1 (1962). This standard does not make comment on the fire performance of external wall materials.

Fire performance of external wall materials did not come in to play until the implementation of the Building Act 1984. However, at this time the building construction was inherently safe, being represented by a masonry cavity wall and other non-combustible materials used on the external walls.

- It appears that in 2014, additional works were commissioned to an install a rendered EPS system to the external wall façade. As is often the case with purpose built high-rise blocks of flats of that era, insulation was poor creating damp issues inside the flats, and the works were most likely commissioned to address this issue. The provision of additional materials would need to satisfy design guidance at the time of construction.

- Paragraph 12.6 of ADB, 2006 (as amended) would not permit the provision of combustible insulation materials on buildings over 18m in height. In this regard, the insulation used on the rendered EPS system would not have satisfied design guidance at the time of installation, unless the wall system had successfully passed a BS 8414-1test to the criteria of BR 135. No such evidence has been produced for review.

- As horizontal fire breaks are provided, vertical fire spread will likely be contained at compartment floor level without rapid development beyond the fire floor such that the fire service resources deployed in the initial pre-determined attendance for high-rise residential would be overwhelmed in the early stages of a fire. If vertical fire breaks are not provided, then the risk of lateral fire spread will be heightened in contrast, although the risk is not perceived to be unacceptably high.

- An additional issue is that the rendered EPS wall system starts at ground floor level, meaning that an external fire could spread directly to impinge on the EPS insulation materials. However, the building perimeter is set-back from the roadway meaning that the impact of a vehicle fire on the external walls of the building is low, although arson cannot be precluded. In such an event the risk of lateral fire spread is heighted. The risk of vertical fire spread is normal.

- Although the insulation is shielded from either side, the 7mm thick cement-based render would likely not satisfy the provisions for a 'thick' inorganic render described in section K.10 of PAS 9980. In this respect, it is unlikely that the risk rating would be neutral. As the EPS is applied directly onto the masonry substrate the risk of fire spread to the interior of the building by the wall configuration is not possible. As the façade openings sit inside the masonry cavity wall, fire spread is unlikely.

- Secondary fires could originate above the fire floor from a flash-over fire inside a flat, although BR 135 demonstrates sufficient performance of horizontal fire breaks in rendered EPS wall systems. As such, vertical spread is not considered to present an unacceptable risk. As far as lateral fire spread is concerned, relevant guidance suggests that vertical fire breaks maybe required to provide fire compartmentalisation between adjoining rooms. The requirement and location of these fire breaks should meet Fire Officer/ Building Control specifications (BR 135: 2013).

- Although this would not typically comply with the provisions set out in Diagram 33 of ADB, 2006 (as amended), it must be understood whether the absence of vertical fire breaks has arisen as a result of misinterpretation of relevant guidance by the installer or whether the design has been approved by building control. It must also be understood whether the system has passed a BS 8414-1 test. The provision of vertical fire breaks is reasonable but further investigation should confirm whether this is an approved system design and whether the actual risk outweighs the cost of the works and associated disruption to the building.

Recommendation
Canterbury City Council are to carry out the recommendations in the FRAEW.

6.5. Roof Coverings

a. Requirements

The final external surface of the roof coverings should be of a flame spread classification, to impede the spread of fire along the roof between compartments (where a compartment line meets the roof junction) and to reduce the spread of fire along the roof between compartments (where a compartment line meets the roof junction) and to reduce the spread of fire to roofs from exposure to fire from the outside.

Roof structures do not require fire resistance but can represent a risk of fire spread from one compartment to another at the junction of a compartment wall to a roof membrane.

Where a compartment wall meets the roof junction, a zone of 1500mm on either side of the junction has a covering of designation AA, AB or AC (to BS 476 Part 12 or equivalent BS EN 13501 Part 5) on a substrate or deck material of limited combustibility. Alternatively, the compartment wall can penetrate the roof membrane and extend 375mm above the top surface of the roof.

b. Arrangements within this building

The roof is flat in construction.

The method of construction would not assist with any fire development with the roof.

The arrangements within this building comply with the above requirements.

6.6. Roof Classification at Junction of Compartment Wall to Roof

a. Requirements

The fire spread classification of the roof material is limited to a specified designation, dependent on the minimum distance from any point of the roof to the proximate relevant boundary, as per the table below.

Table 19 – Fire Resistance of Roof materials

Designation of roof covering		Minimum distance to boundary			
National Class	**European Class**	**<6m**	**6m-12m**	**12m-20m**	**>20m**
AA, AB or AC1	BROOF(t4)	Acceptable			
BA, BB or BC	CROOF(t4)	Unacceptable	Acceptable		
CA, CB or CC	DROOF(t4)	Unacceptable	Acceptable		
AD, BD or CD	EROOF(t4)	Unacceptable	Acceptable		
DA, DB, DC or DD	FROOF(t4)	Unacceptable		Acceptable	

1Unwired glazing at least 4mm thick can be regarded as AA / Roof(t4) designation

b. Arrangements within this building

The arrangements within this building comply with the above requirements.

Section 7.0
Smoke Management

Last Updated 23/09/2024: Version 1.0

Section Contents

Appendices

Type	Ref	Description
Report	Annex 1	Approved Document B Volume 1 Dwellings 2019 incorporating 2020 and 2022 amendments – for use in England
Policy Document	Annex 2	Canterbury City Council Fire Safety Policy (Housing Assets)
Policy Document	Annex 3	Canterbury City Council Fire Risk Assessment Policy
FRA	Appendix 1	Fire Risk Assessment Report
Report	Appendix 7	AOV Commissioning Certificate

Revision History

This manual section has been subject to a review and update as follows:

Revision Date	Version	Purpose of Revision	Revised by
23/09/2024	1.0	Initial report issue	DDS

7.1. Means of Escape Smoke Ventilations

a. Requirements

A summary of the venting requirements as per ADB Vol 1 are given below.

Automatic openable vents (AOV) with min free area of 1.5m² should be provided and linked to smoke detector system and provided with manual override. Smoke ventilation is required at the top of the stairs and at the end of each corridor.

The details below are the requirements from ADB 1;

The locations of the vents are to be compliant with both of the following.

a. Be as high practicable.

b. Be positioned so the top edge is at least as high as the top of the door to the stair.

If smoke is detected in the common corridor or lobby, both of the following will occur;

i. Simultaneous opening of vents on the storey where the fire is located, at the top of the smoke shaft and to the stair.

ii. Vents from the corridors or lobbies on all other storeys should remain closed, even if smoke is subsequently detected on storeys other than where the fire is located.

A vent to the outside with a minimum free area of $1m^2$ is provided from the top storey of the stair.

Free Area of Smoke Ventilators

The free area of a smoke ventilator is measured by either of the following.

a. The declared aerodynamic free area in accordance with BS EN 12101-2
b. The total unobstructed cross-sectional area (geometric free area), measured in the plane where the area is at a minimum and at right angles to the direction of air flow (Diagram D7 from ADB Vol 1)

The Fire Services Act 1947 which were assumed to be the requirements in force at the time of construction, did not specifically address the requirements for smoke control in a block of flats. However, in general, the regulations required buildings to be designed and constructed in a way that provided adequate means of escape in case of fire. This may include features such as fire-resistant staircases, fire doors, emergency lighting, and fire alarms.

Smoke control measures, such as smoke detectors, smoke ventilation systems, and smoke extraction systems, were not specifically mandated by the Fire Services Act 1947.

In 2019, the requirements for internal smoke control within a block of flats over 5 floors were updated to include additional measures such as the installation of a smoke control system that meets specific performance standards outlined in Approved Document B. This could include the use of natural ventilation systems, mechanical ventilation systems, or a combination of both, depending on the design and layout of the building.

Overall, the 2019 Building Regulations place a greater emphasis on the performance and effectiveness of internal smoke control systems, with more detailed requirements and guidelines to ensure the safety of occupants in the event of a fire.

b. Arrangements within this building

- At the top of the protected staircase there are two AOV's at roof level which provide adequate venting of the staircase.
- In each flat lobby 1st to 6th floors there are AOV's fitted which opens into the open communal balconies on both the North and South elevations of the building. These AOV's will give adequate venting to the flat lobbies.

The arrangements within this building do comply with the above requirements of ADB Volume 1 for keeping the means of escape free of smoke.

Section 9.0
Emergency Lighting

Last Updated 23/09/2024: Version 1.0

Section Contents

Appendices

Type	Ref	Description
Report	Annex 1	Approved Document B Volume 1 Dwellings 2019 incorporating 2020 and 2022 amendments – for use in England
Policy Document	Annex 2	Canterbury City Council Fire Safety Policy (Housing Assets)
Policy Document	Annex 3	Canterbury City Council Fire Risk Assessment Policy
FRA	Appendix 1	Fire Risk Assessment Report

Revision History

This manual section has been subject to a review and update as follows:

Revision Date	Version	Purpose of Revision	Revised by
23/09/2024	1.0	Initial report issue	DDS

9.1. Emergency Lighting Systems

a. Requirements

In the event of a fire within the building, it is considered unlikely that the mains power to the primary lighting circuit would be affected in the early stages whilst the occupants are escaping. This is based upon the fact that the electrical supply to the light fittings would initially be away from the general fire origin and therefore continue to operate during the immediate means of escape phase.

Nonetheless, assuming a power failure or worst-case scenario, emergency lighting (as a backup to main lighting) meeting the recommendations of BS5266 Part 1 and BS EN 1828, is provided (As per sections 3.24, 3.41, 3.42, 3.43 and 3.44 of ABD Volume 1 - Areas Requiring Escape Lighting).

Luminaires should be provided and appropriately mounted (generally at least 2m in height) and spaced to provide the light levels suggested within British Standard BS 5266 Part 1:

Table 22- Lux Levels

Location	*Illuminance*	*Duration*
Open areas (>60m2 in area)	*0.5lux*	*3 hours*
Defined escape routes (<2m in width)	*1.0lux*	

Emergency lighting luminaires can either be self-contained emergency luminaires or centrally supplied emergency luminaires.

External routes forming part of the occupant escape (including those located outside the building entrance) to a place of ultimate safety away from the building should also be provided with emergency illumination. IP enclosure classification adheres to BS EN 60529. Existing installations of external street lighting can be used providing continued operation is confirmed.

b. Arrangements within this building

Maintained Emergency Lighting throughout. However, the arrangements within this building do not comply with the above requirements as confirmed and reviewed within the Fire Risk Assessment Report as there is no visible emergency lighting provided within the front right externally entered resident storage area.

Recommendation
Canterbury City Council are to arrange for emergency lighting to be fitted in the front right externally entered resident storage area.

Section 10.0
Signage

Last Updated 23/09/2024: Version 1.0

Section Contents

Appendices

Type	Ref	Description
Report	Annex 1	Approved Document B Volume 1 Dwellings 2019 incorporating 2020 and 2022 amendments – for use in England
Policy Document	Annex 2	Canterbury City Council Fire Safety Policy (Housing Assets)
Policy Document	Annex 3	Canterbury City Council Fire Risk Assessment Policy
FRA	Appendix 1.0	Fire Risk Assessment Report

Revision History

This manual section has been subject to a review and update as follows:

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23/09/2024	1.0	Initial report issue	DDS

10.1. Escape Signage

a. Requirements

Emergency escape signage is required to meet the requirements of the Regulatory (Reform) Fire Safety Order 2005

Such signage will meet the recommendations of BS 5499 Part 4 and BS ISO 3864 Part 1 and is located as follows, except for escape routes which are in ordinary use:

- All designated escape routes or escape routes across open areas are provided with signage in stairs and other changes in level and direction.
- The position of all doors and other exits sited on escape routes, including storey exits and final exits, is identified by signage.
- Where an escape route from a room is not conspicuous, or confusion could occur, the route is indicated by a sign, including intermediate signs where necessary.
- All changes of direction in corridors, stairways and open spaces forming part of an escape route, are marked with intermediate signs. Each intermediate door or junction is similarly signed.

Signage above doors or open spaces should be mounted between 2.0m and 2.5m from floor level and as centrally as practicable. Mounting on walls should be between 1.7m and 2.0m. Measurements are taken from finished floor level to the base of the sign.

Signage should be accompanied by appropriate directional arrows and supplementary text. Examples are given in Section 10.4

b. Arrangements within this building

The arrangements within this building comply with the above requirements as confirmed and reviewed within the Fire Risk Assessment Report.

Escape signage is provided above storey exits and final exit doors from the common areas, within the residential accommodation.

The escape signage on display within the premises is in accordance with the recommendations made in BS 5499 Part 4 and BS ISO 3864 Part 1.

10.2. Other Signage

a. Requirements

Except for front doors to the apartments, or internal fire doors within apartments, fire resisting doors and fire exit doors (escape routes in and around the development) should be provided with appropriate blue mandatory fire safety signage. Examples are given in Section 10.4

General signage for day-to-day use is provided under the recommendations of BS 5499 Part 5.

b. Arrangements within this building

The arrangements within this building comply with the above requirements with the correct fire door, extinguisher and no smoking signage displayed as confirmed and reviewed within the Fire Risk Assessment Report.

The signage installed throughout the premises is in accordance with the recommendations of BS 5499 Part 5.

10.3. Wayfinding Signage

a. Requirements

Within the fire safety regulations in England, wayfinding signage is crucial for guiding individuals to safety in the event of a fire. The requirements for wayfinding signage include:

1. Clear and visible signage: Wayfinding signage should be easily visible and clearly indicate the escape routes and emergency exits in a building.
2. Illumination: Wayfinding signage should be illuminated in case of power failure, to ensure visibility in low-light conditions.
3. Obstruction-free: Wayfinding signage should be unobstructed and free from any obstacles that may impede visibility or access to escape routes.
4. Directional arrows: Wayfinding signage should include directional arrows to guide individuals towards the nearest emergency exit or safe refuge area.
5. Consistent and uniform: Wayfinding signage should be consistent in design and placement throughout the building, to avoid confusion and ensure a clear path to safety.
6. Multi-language signage: In buildings with a diverse population, wayfinding signage should be provided in multiple languages to ensure that all occupants can understand and follow the directions in case of an emergency.

b. Arrangements within this building

This is detailed within Section 12.4 of this fire strategy report.

10.4. Examples - Signage

Table 23 – Escape Signage

Escape Route Sign	Meaning	Location Examples
	*Progress down to the right (change of level)*	*On wall / suspended at head of stairs* *On half landing wall or stairs* *Suspended at change of level*
	*Progress up to the right (change of level) / Progress forward and across to the right from here when suspended in open area*	*On wall / suspended at foot of stairs* *On half landing wall / stairs* *Suspended at change of level* *Suspended in open areas*
	*Progress down to the left (change of level)*	*On wall / suspended at head of stairs* *On half landing wall / stairs* *Suspended at change of level*
	*Progress up to the left (change of level) / Progress forward and across to the left from here when suspended in open area*	*On wall / suspended at foot of stairs* *On half landing wall / stairs* *Suspended at change of level* *Suspended in open areas*
	*Progress forward from here /* *Progress forward and through (when sited above door) /* *Progress forward and up from here (change of level)*	*Suspended in corridor leading to door* *Suspended in open areas* *Suspended in front of door* *Positioned above door* *Suspended at foot of stairs or ramp*
	*Progress to the right from here*	*On corridor walls* *Suspended adjacent and left of the exit* *Suspended at change of direction*
	*Progress to the left from here*	*On corridor walls* *Suspended adjacent and right of the exit* *Suspended at change of direction*
	*Progress down from here (change of level)*	*Suspended at head of stairs / ramp* *Suspended at change of level*

Table 24 – Other Signage

Method of closure	Signage	Sign diameter letter height	Location
Self-Closing Device		*60mm sign diameter and 5mm letter height*	*Fire doors in corridors, staircases and protected lobbies*
Keep Locked Shut			*On the outside door of the riser cupboards and maintenance access cupboards*
Automatic Door			*Doors nominated as automatic closing doors*

Table 25 – Mandatory Signage

Safety Sign	Signage	Location
No smoking		*Stair entrance lobby*
No naked flames		*External communal amenity areas*
Fire extinguisher		*Adjacent to fire extinguishers*

Section 11.0
First Aid Fire Fighting

Last Updated 23/09/2024: Version 1.0

Section Contents

Appendices

Type	Ref	Description
Report	Annex 1	Approved Document B Volume 1 Dwellings 2019 incorporating 2020 and 2022 amendments – for use in England
Policy Document	Annex 2	Canterbury City Council Fire Safety Policy (Housing Assets)
Policy Document	Annex 3	Canterbury City Council Fire Risk Assessment Policy
FRA	Appendix 1	Fire Risk Assessment Report

Revision History

This manual section has been subject to a review and update as follows:

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11.1. Manual Firefighting Equipment

a. Requirements

In the Regulatory Reform (Fire Safety) Order 2005 (fire safety legislation) it states that the premises must be equipped with appropriate fire-fighting equipment where appropriate. With this, the person appointed responsible for fire safety must ensure that peoples training and equipment available to them are adequate.

To comply with the Fire Safety Order, suitable portable fire extinguishers will need to be provided throughout the building in accordance with the recommendations of BS 5306-8[11.41].

A general guide for the extent of fire extinguishers would typically involve one extinguisher per 200m^2 of floor area, with the appropriate medium agent relevant to the primary risk contained within the area i.e. carbonaceous material – water, liquid fires – powder or CO_2.

Extinguishers located in plant rooms or communal hazard areas should be positioned so as to be readily seen by persons following an escape route on either bracket's (handles between 1.0m and 1,5m from finished floor level), or on floor stands or within cabinets.

Portable fire extinguishers in a high-rise purpose-built block of flats must comply with the following requirements as per the UK Government Guide on Purpose Built Blocks of Flats:

1. All portable fire extinguishers must be BS EN3 approved and maintained in accordance with the manufacturer's instructions.

2. The type and quantity of fire extinguishers provided should be determined by a fire risk assessment carried out by a competent person.

3. Fire extinguishers should be mounted on a wall or on a suitable stand at the correct height for easy access.

4. Fire extinguishers should be regularly serviced and maintained by a competent person to ensure they are in working order.

5. Fire extinguishers should be clearly labeled with the type of fires they are suitable for (e.g. Class A, B, C, etc.) and the instructions for use.

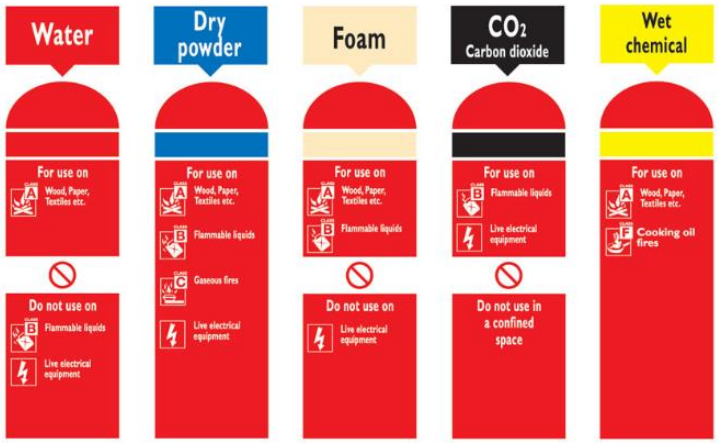
6. Ideally, fire extinguishers should be accompanied by fire blankets in kitchen areas and other high-risk areas.

b. Arrangements within this building

The arrangements within this building comply with the above requirements as confirmed and reviewed within the Fire Risk Assessment Report.

11.2. Fire Extinguishers General Guide

A general guide is indicated below.



Section 12.0
Access and Facilities for the Fire Service

Last Updated 23/09/2024: Version 1.0

Section Contents

Appendices

Type	Ref	Description
Report	Annex 1	Approved Document B Volume 1 Dwellings 2019 incorporating 2020 and 2022 amendments – for use in England
Policy Document	Annex 2	Canterbury City Council Fire Safety Policy (Housing Assets)
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FRA	Appendix 1	Fire Risk Assessment Report

Revision History

This manual section has been subject to a review and update as follows:

Revision Date	Version	Purpose of Revision	Revised by
23/09/2024	1.0	Initial report issue	DDS

12.1 Fire Service Access - General Principles

To assist with the purpose of protecting life via Fire and Rescue Service operations, the building is provided with access and supporting facilities to assist the attending Fire and Rescue Service.

Schedule 1 of the Building Regulations requires the following functional requirement to be met in respect of B5, Access and Facilities for the Fire Service:

1) *The building is designed and constructed so as to provide reasonable facilities to assist fire fighters in the protection of life.*
2) *Reasonable provisions are made within the site of the building to enable fire appliances to gain access to the building.*

The following section provides an overview of how these requirements are applied to this building.

a) Hydrant and Water Supply Access

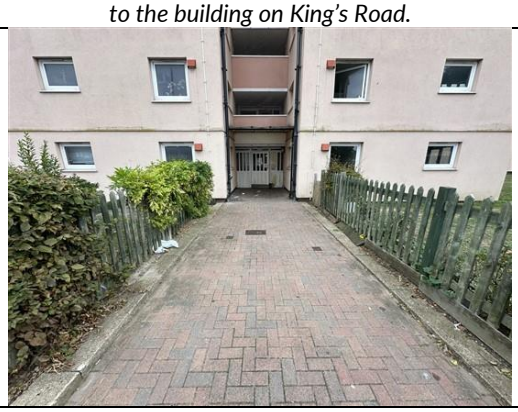
Requirements

Approved Document B, Vol 1 Section 14.9, recommends that public hydrants should be present to ensure that rising main inlets, or the building(s) entrances, are accessible within 90m of an available hydrant, with further hydrants no more than 90m apart from one another.

Arrangements for this building

Suitable fire hydrants are in the vicinity of this building and have been adopted by the fire service. (See Appendix 7.0)

Hydrant Locations;

<table>
<tr><td>  </td><td>  </td></tr>
<tr><td>Main hydrant approx. 9.5m away from the dry riser inlet to Elizabeth Court 1 - 27 located on the pavement directly in front of the rear entrance door to the building on King's Road.</td><td>Secondary hydrant approx. 42m away from the dry riser inlet to Elizabeth Court 1 – 27 located on the pavement at the junction of Beach Street / King's Road.</td></tr>
<tr><td>  </td><td>  </td></tr>
</table>

b) External Fire Service Vehicle Access Requirements

i. Access must be provided for a pumping appliance to within 45m of all points inside each flat of a block, measured along the route of the hose. Every elevation to which vehicle access is provided should have a suitable door(s), not less than 750mm wide, giving access to the interior of the building. Door(s) should be provided such that there is no more than 60m between each door and/or the end of that elevation (e.g. a 150m elevation would need at least two doors).

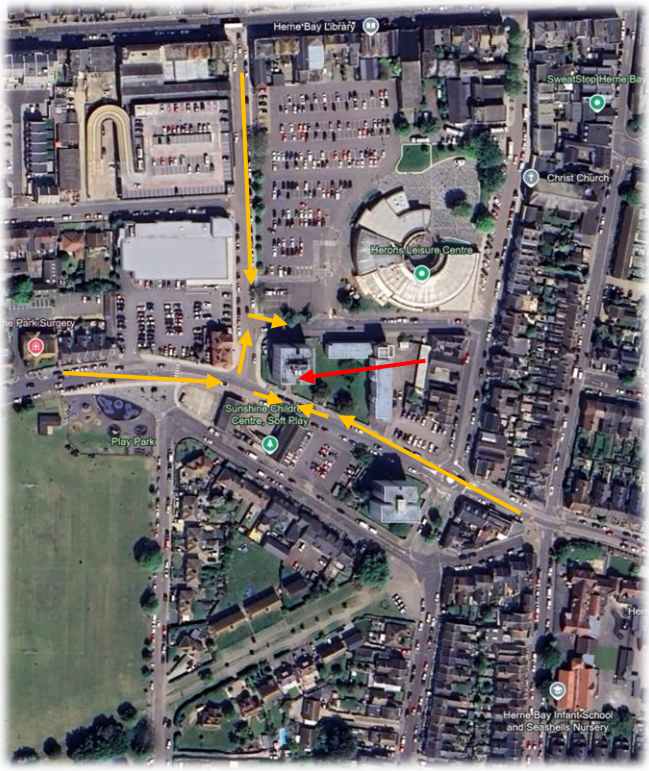
ii. Provide fire mains in accordance with ADB Table 26 and 27. Access routes and hard standings with Dead-end access routes longer than 20m require turning facilities such as a turning circle or hammerhead facility.

Arrangements for this building

Fire vehicle access to the building is provided:

- The building can be accessed from the South side of the property via King's Road from both directions.
- The building can also be accessed from the North side of the building from Queen Street. Access to Queen Street is from either King's Road or Beach Street.
- All the entrances to this building are accessible within 45m from a suitable pump appliance parking location.
- The fire service vehicle access arrangements meet the minimum requirements in tables 26 and 27 detailed in Section 12.8.

Site plan mark-up showing fire service access provisions:



Vehicle access routes to Elizabeth Court.

Dry riser inlets inside front entrance to the building.

12.2 Access to Buildings for firefighting Personnel - Flats

Introduction

A firefighting shaft is a dedicated vertical space within a building that is specifically designed to aid firefighters in controlling and extinguishing fires. It typically runs the full height of the building and allows firefighters quick and safe access to different levels during a fire emergency. Firefighting shafts are usually built with fire-resistant materials and equipped with features such as fire doors, ventilation systems, fire hydrants, hose connections, and clear markings for easy identification. These shafts help to prevent the spread of fire and smoke, provide a secure pathway for firefighters, and assist in the efficient and effective firefighting operations within a building.

a. Requirements

ADB requires that a building with a storey more than 18m above the fire and rescue service vehicle access level should have one or more firefighting shafts, each containing a firefighting lift (Diagram 15.1).

The number and location of firefighting shafts should comply with paragraphs 15.4 to 15.7. Firefighting shafts are not required to serve a basement that is not large or deep enough to need one (see paragraph 15.3 and Diagram 15.2).

Building Regulations Approved Document B requires that a firefighting shaft in a 9-storey residential tower block must have the following features:

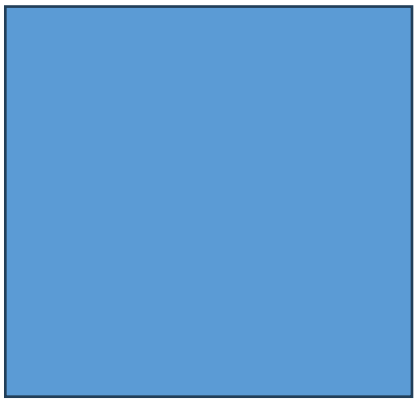
1. The firefighting shaft should be constructed of fire-resisting construction, with fire doors at each level providing a minimum of 30 minutes fire resistance.
2. Fire rated walls and ceilings must be provided in the firefighting shaft, with fire stopping materials used to seal any penetrations or openings.
3. The firefighting shaft should have a firefighting lift installed, which is designed to operate in a fire situation and provide easy access for firefighters to all levels of the building.
4. The firefighting shaft must be adequately ventilated to ensure smoke and heat can be removed in the event of a fire.
5. In buildings over 11 metres in height, a dry rising main should be provided in the firefighting shaft to allow firefighters to access water at all levels of the building.
6. The firefighting shaft should be clearly signposted and kept clear of obstructions at all times to ensure easy access for firefighters in an emergency.

Notes:
A firefighting shaft is a dedicated vertical passage within a building that is specifically designed to allow firefighters to access and fight fires. These shafts are typically enclosed and serve multiple floors, providing a safe and secure route for firefighters to travel between different levels of a building in the event of a fire.

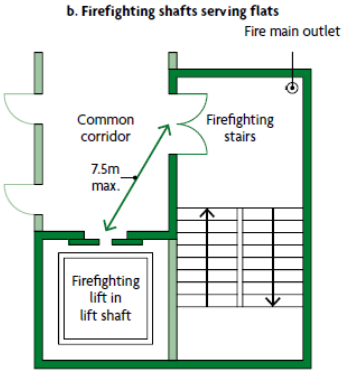
On the other hand, a protected stair used for firefighters is a standard internal staircase within a building that has been specifically designed and constructed to provide a safe means of escape for occupants in the event of a fire. These staircases are typically enclosed and have fire-resistant walls, doors, and fittings to prevent the spread of fire and smoke.

The main difference between a firefighting shaft and a protected stair used for firefighters is that the former is specifically designated for use by firefighters during emergency situations, while the latter is primarily intended for the safe evacuation of building occupants. Both features are essential for fire safety in buildings but serve different purposes and are designed accordingly.

See paras 15.2, 15.8 and 15.9



b. Firefighting shafts serving flats



Minimum fire resistance REI 120 from accommodation side and REI 60 from inside the shaft with E 60 S_a fire doors

Minimum fire resistance REI 60 from both sides with E 30 S_a fire doors

NOTES:

1. Outlets from a fire main should be located in the firefighting lobby or, in the case of a shaft serving flats, in the firefighting stairway (see Diagram b).
2. Smoke control should be provided in accordance with BS 9999 or, where the firefighting shaft only serves flats, the provisions for smoke control given in paragraph 3.49 may be followed instead.
3. A firefighting lift is required if the building has a floor more than 18m above, or more than 10m below, fire service vehicle access level.
4. This diagram is only to illustrate the basic components and is not meant to represent the only acceptable layout. The firefighting shaft should be constructed generally in accordance with section 6 of BS 9999.
5. For the minimum fire resistance of lift doors see Table C1.

Diagram 15.1 Components of a firefighting shaft

See para 15.2

Buildings in which firefighting shafts should be provided, showing which storeys need to be served

a. Any building

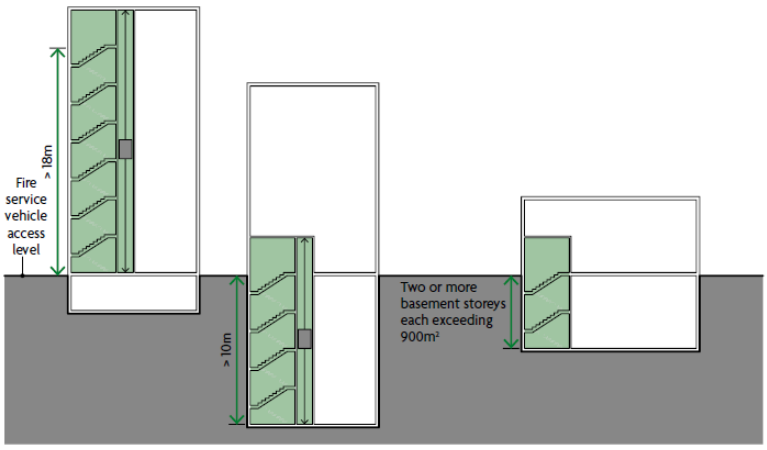
The upper storeys in any building with a storey more than 18m above fire service vehicle access level

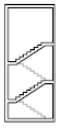
b. Any building

The basement storeys in any building with a basement more than 10m below fire service vehicle access level

c. Any building

The basement storey(s) in any building with two or more basements each exceeding 900m²





Extent of firefighting stair

Extent of firefighting lift

NOTES:

1. Height excludes any top storey(s) consisting exclusively of plant rooms.
2. Firefighting shafts should serve all floors through which they pass.

Diagram 15.2 Provision of firefighting shafts

b. Arrangements for this building

The arrangements within this building broadly comply with the requirements of ADB with the exception of the fact that there is no separate Fire Fighting shaft, it is a protected stair, and the lift is not a Firefighting lift (it is a Fireman's lift) as detailed in the comparative diagrams below.

Diagram below comparing ADB to Elizabeth Court;

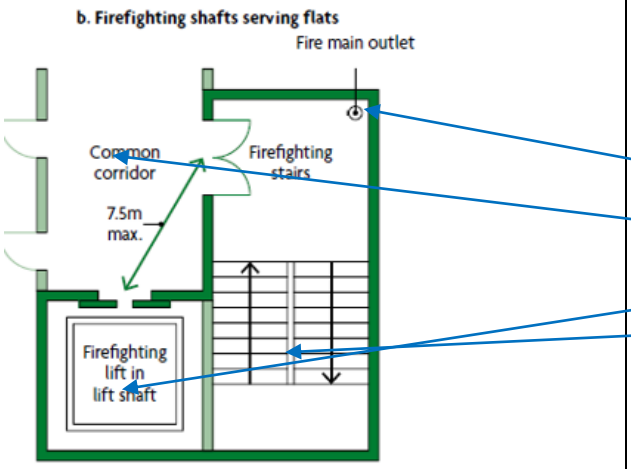
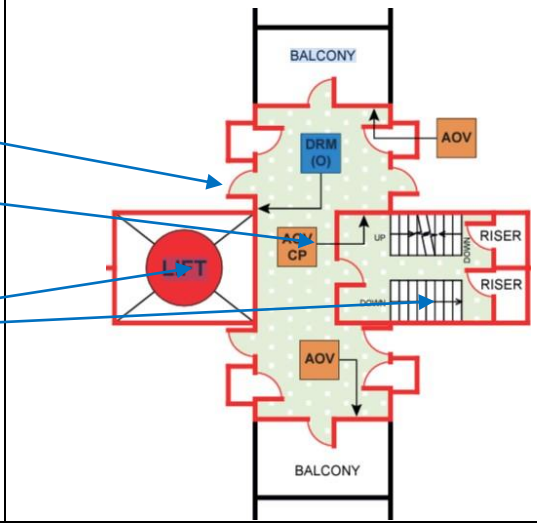
ADB (Diagram 15.1)	Elizabeth Court 1 – 27 (extract from ERP Drawing)
	

Table below comparing ADB to The Elizabeth Court 1 - 27;

ABD	Present Y/N	Further Details
The firefighting shaft should be constructed of fire-resisting construction, with fire doors at each level providing a minimum of 30 minutes fire resistance.	Y; In Elizabeth Court this is a protected staircase.	Section 5 Internal Fire Spread
Fire rated walls and ceilings must be provided in the firefighting shaft, with fire stopping materials used to seal any penetrations or openings.	Y	Section 5 Internal Fire Spread
The shaft must have adequate ventilation to ensure smoke can be cleared from the space in the event of a fire	Y	Section 7 Smoke Management
The firefighting shaft should have a firefighting lift installed, which is designed to operate in a fire situation and provide easy access for firefighters to all levels of the building.	Y; Lift is a Fireman's lift	See above plan and Section 3.3 Cause and Effect
The shaft should have access for firefighters to enter and fight the fire from within the building.	Y	As per diagram above
In buildings over 11 metres in height, a dry rising main should be provided in the firefighting shaft to allow firefighters to access water at all levels of the building.	Y	As per diagram above
The firefighting shaft should be clearly signposted and kept clear of obstructions at all times to ensure easy access for firefighters in an emergency.	Y	See Section 10.0 also monitored in FRA

Notes on Lift Differences

A firefighter's lift is a type of lift that is designed specifically for firefighters to use during emergencies. It is typically larger and more robust than a standard lift, with the ability to carry heavy equipment, such as fire extinguishers and hoses. Firefighter's lifts also have special safety features, such as;.

- *Dedicated, protected lift shaft.*
- *Fireproof doors and automatic recall to the ground floor in the event of a fire*
- *Emergency operation – where firefighters can control the lift operation and use the communication system with the Fire Service Access Level (FSAL).*
- *A means of self-rescue from the lift – an escape hatch or trap door in the ceiling plus ladders.*
- *Fire and water protection for all electrics.*
- *Fail safe, secondary power supply – this may be a back-up generator located in a fire protected area to ensure that the lift operation in maintained even if the main power supply to the building goes off. Plus, the cables must be protected.*
- *Measures to prevent the build-up of water in the lift well – these measures could include drains or pumps in the lift pit.*
- *The lift must be able to reach the top floor in 60 seconds (up to 200m).*
- *Shaft and machine room lighting is switched on during the emergency.*
- *Once in firefighter mode, doors remain closed on arrival; constant pressure control of doors and communication between lift car, machine room and FSAL.*

On the other hand, a fireman's lift is an older and now outdated term that was used to refer to a type of lift that was manually operated by a fireman. This person would control the lift to help firefighters access different floors of a building during emergencies. However, with the advancement of technology, manual fireman's lifts have largely been replaced by modern firefighter's lifts.

The key differences between a firefighter's lift and a fireman's lift are:

1. *Technology: A firefighter's lift is automated and equipped with advanced safety features, while a fireman's lift was operated manually by a person.*
2. *Size and capacity: Firefighter's lifts are typically larger and able to accommodate heavy equipment, whereas fireman's lifts were usually smaller and had limited capacity.*
3. *Safety features: Firefighter's lifts have specialized safety features, such as fireproof doors and automatic recall, to ensure the safety of firefighters during emergencies. Fireman's lifts may not have had such advanced safety features.*
4. *Usage: Firefighter's lifts are specifically designed for use by firefighters during emergencies, while fireman's lifts were used by building staff or firemen to transport passengers and equipment.*

12.3 Ventilation for firefighting

The applicable smoke venting requirements for the above ground floor levels are discussed in detail as part of the Means of Escape (Section 3.0) and Smoke Management (Section 7.0)

12.4. Wayfinding Signage

Introduction

Within the fire safety regulations in England, wayfinding signage is crucial for guiding individuals to safety in the event of a fire. The requirements for wayfinding signage include:

1. Clear and visible signage: Wayfinding signage should be easily visible and clearly indicate the escape routes and emergency exits in a building.
2. Illumination: Wayfinding signage should be illuminated in case of power failure, to ensure visibility in low-light conditions.
3. Obstruction-free: Wayfinding signage should be unobstructed and free from any obstacles that may impede visibility or access to escape routes.
4. Directional arrows: Wayfinding signage should include directional arrows to guide individuals towards the nearest emergency exit or safe refuge area.
5. Consistent and uniform: Wayfinding signage should be consistent in design and placement throughout the building, to avoid confusion and ensure a clear path to safety.
6. Multi-language signage: In buildings with a diverse population, wayfinding signage should be provided in multiple languages to ensure that all occupants can understand and follow the directions in case of an emergency.

a. Requirements

To assist the fire service to identify each floor in a block of flats with a top storey more than 11m above ground level, floor identification signs and flat indicator signs should be provided.

The floor identification signs should meet all of the following conditions.

i. *The signs should be located on every landing of a protected stairway and every protected corridor/lobby (or open access balcony) into which a firefighting lift opens.*
ii. *The text should be in sans serif typeface with a letter height of at least 50mm. The height of the numeral that designates the floor number should be at least 75mm.*
iii. *The signs should be visible from the top step of a firefighting stair and, where possible, from inside a firefighting lift when the lift car doors open.*
iv. *The signs should be mounted between 1.7m and 2m above floor level and, as far as practicable, all the signs should be mounted at the same height.*
v. *The text should be on a contrasting background, easily legible and readable in low level lighting conditions or when illuminated with a torch.*

The wording used on each floor identification sign should take the form Floor X, with X designating the number of the storey, as intended for reference by residents. The floor number designations should meet all the following conditions.

i. *The floor closest to the mean ground level should be designated as either Floor 0 or Ground Floor.*
ii. *Each floor above the ground floor should be numbered sequentially beginning with Floor 1.*
iii. *A lower ground floor should be designated as either Floor –1 or Lower Ground Floor.*
iv. *Each floor below the ground floor should be numbered sequentially beginning with Floor –1 or Basement 1.*

All floor identification signs should be supplemented by flat indicator signs, which provide information relating to the flats accessed on each storey. The flat indicator signs should meet all the following conditions.

i. *The signs should be sited immediately below the floor identification signs, such that the top edge of the sign is no more than 50mm below the bottom edge of the floor identification sign.*
ii. *The wording should take the form Flats X–Y, with the lowest flat number first.*
iii. *The text should be in sans serif typeface with a letter height of at least half that of the floor indicator sign.*

iv. The wording should be supplemented by arrows when flats are in more than one direction.
v. The text and arrows should be on a contrasting background, easily legible and readable in low level lighting conditions or when illuminated with a torch.

NOTE: In the case of multi-storey flats with two or more entrances, the flat number should only be indicated on the normal access storey.

b. Arrangements within this building

The arrangements within this building comply with the above requirements, the correct wayfinding signage displayed as confirmed and reviewed within the Fire Risk Assessment Report.

12.5 Emergency Response Packs (ERPs)

a. Requirements

The Fire Safety (England) Regulations 2022 made it a legal requirement from 23 January 2023 for responsible persons of high-rise residential buildings and complex buildings 11m – 18m, in England to draw up and share electronically up-to-date floor plans identifying the location of key fire-fighting equipment with their local fire and rescue services. The NFCC Code of Practise, sets out the requirements in the Code of Practise for the provision of Emergency Response Packs (ERP's).

The Emergency Response Pack contains information that is required for the purpose of operational firefighting and rescue. Accordingly, the contents need to be "tailor made" for the building and residents in question, but should always comprise, as a minimum:

- a log book for the purpose of recording events that occur in respect of the PIB system including emergency use, system updates etc;
- an Off The Run' notice containing details of any fire-fighting fixed installations not available for use and/or unresolved fire safety issues;
- a Summary of information useful to the Fire & Rescue Service on arrival at an incident;
- an Orientation plan, showing the location of the building in relation to surrounding buildings and other reference points (e.g. roads) and also water supplies;
- a building layout plan showing the internal layout, including up to date floor plans;
- a simple layout plan (if not provided in the Orientation plan) showing water supplies for firefighting including hydrants, emergency water supplies, wet riser supplies etc.;
- simple layout plans showing facilities of particular relevance to operational firefighting and rescue including relevant information regarding any lift(s) intended for use by the FRS;
- information on residents with mobility, cognitive or sensory impairment(s);
- significant fire safety issues – any compartmentation, external wall system or other fire safety issues which may affect fire behaviour in the premises;
- a description of the current evacuation strategy, e.g., stay put, simultaneous evacuation.

Building plans should be A3 size and be encapsulated or placed inside plastic wallets so that they can stand up to the rigors of use.

There should be two sets of all plans.

A plan will need to be prepared for each floor, but where floors are identical only one plan needs to be produced.

The responsible person will also be required to provide their local fire and rescue services with an additional single page building plan which should include the location of all key fire-fighting equipment.

The plans should be simple, to assist quick and critical decisions taken by operational fire-fighters during an incident.
Ref: https://www.gov.uk/government/publications/fire-safety-england-regulations-2022/fact-sheet-floor-plans-and-building-plan-regulation-6

b. Arrangements within this building

The arrangements within this building do not comply with the above requirements. Whilst there was an Emergency Response Pack located in the SIB, the following information is missing:

- Information on residents with mobility, cognitive or sensory impairment(s);

Recommendations

- Canterbury City Council are to update the ERP to ensure it has the following:
  - information on residents with mobility, cognitive or sensory impairment(s);

- Canterbury City Council are to consider commissioning third party reviews of the contents within the PIB to ensure that it is up to date and meets the requirements of The NFCC Code of Practise.

12.6 Premises/Secure Information Boxes

a. Requirements

The NFCC Code of Practise, sets out the requirements in the Code of Practise for the provision of Premises Information Boxes in Residential Buildings.

A Premises Information Box (also known as a secure information box (SIB)) provides a secure facility to store information about a building for use by the fire service during an incident.

The code of practice applies to the provision of PIBs and ERPs within the following types of premises:

a. existing blocks of flats whose top storey floor height is 18m or more, or over six
b. storeys (ground plus five upper storeys), whichever is the lower;
c. existing blocks of flats whose top storey floor height is below 18m or under six
d. storeys which have additional complexity i.e. layout, access, floor numbering, flat
e. numbering, firefighting facilities, fire engineering etc;
f. student accommodation designed like a block of flats, e.g. those adopting a stay put
g. approach whose top storey floor height is 11m or more;
h. new build blocks of flats whose top storey floor height is 11m or more.

The box should meet all the following conditions.

a. Sized to accommodate all necessary information.
b. Easily located and identified by firefighters.
c. Secured to resist unauthorised access but readily accessible by firefighters.
d. Protected from the weather.

b. Arrangements within this building

The arrangements within this building comply with the above requirements, there is a PIB located on the wall by the fire alarm panel at the front entrance to the building. There was an Emergency Response Pack located in the SIB.

.

12.7 Emergency Power Supply

a. Requirements

All life safety systems provided within the building must have an independent power supply that will operate in event of a power failure in the building.

b. Arrangements for this building

The arrangements within this building comply with the above requirements.
Each life safety system provided within the building has an independent power supply that would operate in the event of a failure of the main supply, within the individual specification limits.

Design of the emergency power supply strategy is in accordance with BS 8519 and includes a secondary supply of the following components / systems:

- Automatic Opening Vents & Mechanical Smoke Venting Systems (where applicable),
- Fire alarm systems,
- Emergency lights and signs.

12.8 ADB Requirements

For reference only as referred to in section 12.1

Table 26 – Fire Service Vehicle Access

Appliance Type	*Minimum width of road between kerbs*	*Minimum width of gateway*	*Minimum turning circle between kerbs*	*Minimum turning circle between walls*	*Minimum clearance height*	*Minimum carrying capacity*
Pump	*3.7m*	*3.1m*	*16.8m*	*19.2m*	*3.7m*	*14.0t*
High reach			*26.0m*	*29.0m*	*4.0m*	*23.0t*

1Non-standardised appliance types may be applicable, dependent on Local Fire Authority.

Table 27 – Fire Service Vehicle Turning Distances

Design Requirement	*Dimension1*	*Comment*
Maximum distance of building external wall to near edge of access route	*2.0m*	*Overhead obstruction / roof over-hang to be avoided*
Minimum width of access route	*5.5m*	*To allow for maneuvering*
Minimum distance between furthest edge of access route and obstruction	*2.2m*	*For swing of appliance platform*

1Non-standardised appliance types may be applicable, dependent on Local Fire Authority.

Section 13.0
Fire Safety and Management

Last Updated 23/09/2023: Version 1.1

Section Contents

Appendices

Type	Ref	Description
Report	Annex 1	Approved Document B Volume 1 Dwellings 2019 incorporating 2020 and 2022 amendments – for use in England
Policy Document	Annex 2	Canterbury City Council Fire Safety Policy (Housing Assets)
Policy Document	Annex 3	Canterbury City Council Fire Risk Assessment Policy
FRA	Appendix 1	Fire Risk Assessment Report

Revision History

This manual section has been subject to a review and update as follows:

Revision Date	Version	Purpose of Revision	Revised by
23/09/2024	1.0	Initial report issue	DDS

13.1 Overview

Canterbury City Council have a fully documented fire safety management system as follows;

- Annex 2 - Canterbury City Council Fire Safety Policy (Housing Assets)
- Annex 3 –Canterbury City Council Fire Risk Assessment Policy

For the purpose of this fire strategy document, the contents of these Canterbury City Council policy documents have not been repeated as the reader should refer to these as appropriate.

However, the contents of each Annex are summarised as follows:

- Annex 2 - Canterbury City Council Fire Safety Policy (Housing Assets)
  This policy will be used by all to ensure understanding of the obligations placed upon CCC to maintain a safe environment for tenants and employees within the homes of each tenant, and within all communal areas of buildings and 'other' properties owned and managed (offices, commercial shops, depots, etc.). *(Ref Page 4, Section 2.4)*

  CCC has a diverse housing asset portfolio which consists of sheltered schemes, hostels and general needs blocks. There are also a small number of previously non-housing related buildings which have been converted into housing. *(Ref Page 4, Section 2.5)*

  The objective of the policy is to set out how CCC will manage fire safety. The detail on how this will be done is set out in the Procedure for Fire Safety, which is a separate document. *(Ref Page 4, Section 2.6)*

- Annex 3 – Canterbury City Council Fire Risk Assessment Policy

  The policy is relevant to all Canterbury employees, tenants, contractors and other persons or other stakeholders who may work on, occupy, visit, or use its premises, or who may be affected by its activities or services. *(Ref Page 2, Section 2.4)*

  It should be used by all to ensure they understand the obligations placed upon Canterbury to maintain a safe environment for tenants and employees within the homes of each tenant, and within all communal areas of buildings and 'other' properties owned and managed (offices, commercial shops, depots, etc.). *(Ref Page 2, Section 2.5)*

  Risk assessment – Canterbury will establish and maintain a risk assessment for fire safety management and operations. This risk assessment will set out the organisation's key fire safety risks together with appropriate mitigations. *(Ref Page 7, Section 7.1)*

13.2. Management Arrangements

Management arrangements, roles and responsibilities are clearly set out within each of the Annexes referred to above.

Compliance with Management arrangements is monitored and reviewed as part of the Fire Risk Assessment programme.

13.3 Fire Risk Assessment Arrangements

Fire Risk Assessment requirements, management arrangements, roles and responsibilities are clearly set out within each of the Annexes referred to above.

This property has a fire risk assessment in place (Appendix 1) which is subject to regular review and management action as appropriate.

The fire risk assessments are carried out by a BAFE SP205 Life Safety fire risk assessment Approved contractor.

13.4 Evacuation Arrangements

The evacuation strategy requirements and provisions required within this building are clearly set out within each of the Annexes referred to above.

Details of the building category and evacuation strategy are recorded in Section 2.0 Building Overview of this fire strategy report.

This property has a fire risk assessment in place (Appendix 1) which is subject to regular review and management action as appropriate, this focusses on the use of this building, evacuation strategy and means of warning and escape.

Section 14.0
How to use this Manual

Last Updated 23/09/2024: Version 1.0

Section Contents

Appendices

Type	Ref	Description
Report	Annex 1	Approved Document B Volume 1 Dwellings 2019 incorporating 2020 and 2022 amendments – for use in England
Gvt Document	Annexe 1b	Building Regulations 1965
Policy Document	Annex 2	Canterbury City Council Fire Safety Policy (Housing Assets)
Policy Document	Annex 3	Canterbury City Council Fire Risk Assessment Policy
FRA	Appendix 1	Fire Risk Assessment Report

Revision History

This manual section has been subject to a review and update as follows:

Revision Date	Version	Purpose of Revision	Revised by
23/09/2024	1.0	Initial report issue	DDS

14.1 Fire Strategy Manual – Introduction

This Retrospective Fire Strategy Manual is a comprehensive and tailored document designed specifically for this building. It conducts a detailed review of all fire safety aspects within the premises, including construction, compartmentation, means of escape, fire safety measures, and management arrangements. The primary goal is to ensure that the building is safe and suitable for its intended purpose or end user.

As a 'working document,' this manual should be regularly maintained, updated, and utilised as a critical reference guide for fire safety provisions within the building. It serves as an essential tool to support the development of the Building Safety Case, outlining the necessary measures and procedures to enhance fire safety and protect the occupants of the building.

14.2 Legislation Requirements

The Building Safety Act 2022 is a piece of legislation aimed at improving the safety of residential high rise blocks of flats over 18m in height. It requires building owners to identify and manage safety risks in their buildings, including completion of a Building Safety Case for each building.

The Act also establishes a new regulator to oversee building safety and enforce compliance with safety standards. Additionally, the Act introduces new requirements for the design, construction, and maintenance of high rise buildings to prevent fire and other safety hazards.

Key requirements are;

1. Identification of the building and its key stakeholders: This includes details about the building, its construction, ownership, and management structure.
2. Description of the building: This includes information about the construction materials, design, and layout of the building.
3. Assessment of fire risk: This involves conducting a comprehensive assessment of fire risk within the building, including the potential for fire to spread, the effectiveness of fire protection measures, and the adequacy of escape routes.
4. Identification of fire safety measures: This involves detailing the fire safety measures in place within the building, such as fire detection and alarm systems, sprinkler systems, and emergency lighting.
5. Evaluation of building safety management: This involves assessing the effectiveness of the building safety management systems in place, including the training and competence of staff, maintenance procedures, and emergency response plans.
6. Review of the building safety case: This involves ensuring that the building safety case is up to date and reflects the current state of the building and its management.

Overall, the Building Safety Case for a residential high-rise block of flats over 18m must demonstrate that adequate measures are in place to manage and mitigate the risks associated with fire and other building safety issues.

Two key elements to support the creation of the Building Safety Case are;

- Retrospective Fire Strategy Report*
- Fire Risk Assessment (Appendix 1)**

* ***A retrospective fire strategy report*** *is a document that outlines the fire safety measures and strategies that are currently in place within a building. It provides an evaluation of the building's fire safety features, identifies any areas of weakness or improvement, and suggests actions to address them.*

It is an important element of a Building Safety Case because it helps to ensure that a building is adequately protected against the risk of fire. By reviewing the existing fire safety measures and identifying any deficiencies, building owners and managers can take proactive steps to mitigate the risk of fire and protect the occupants of the building.

Additionally, a retrospective fire strategy report is often required by regulatory authorities to demonstrate compliance with fire safety regulations and standards. It provides a comprehensive overview of the building's fire safety features and can be used as a reference point for future assessments and audits.

*** A fire safety risk assessment** *is a systematic evaluation of the potential threats and hazards that could cause a fire in a building, and the measures in place to prevent or mitigate those risks. It involves identifying potential ignition sources, fuel sources, and pathways for fire spread, as well as evaluating the effectiveness of existing fire protection systems and emergency procedures.*

A fire safety risk assessment is an important element of a Building Safety Case because it helps to ensure that the building is compliant with relevant fire safety regulations and standards, and that the occupants are adequately protected in the event of a fire. By conducting a thorough assessment, building owners and managers can identify potential weaknesses in their fire safety measures and take corrective actions to reduce the risk of fire and improve the overall safety of the building.

A fire safety risk assessment is a legal requirement in high-rise residential buildings. Failing to conduct a proper assessment or address identified risks can result in fines, legal penalties, and, most importantly, put the lives and safety of occupants at risk. Therefore, it is crucial for building owners and managers to prioritise fire safety risk assessments as part of their overall Building Safety Case.

A full breakdown of legislation, approved codes of practise, and relevant guidance is included in Section 15 of this Manual.

14.3 Scope

The intent of this fire strategy is to provide a retrospective review of the fire safety and protection provisions of this building, and the management of fire safety. This will give a platform for approval of future uses and amendments for the building, as well as a basis for future fire risk assessments.

This fire strategy has been written on the basis that the premises are managed as a single entity, in particular the management of the fire protection measures and evacuation strategy and covers the following;

Fire Strategy Summary and Recommendations (Section 1.0)

- *A summary of the Fire Strategy within the building*
- *Recommendations for any remedial measures that may be appropriate*

Building Overview (Section 2.0)

A summary of the building, its location, use, purpose groups and the evacuation strategy.

Means of Warning (Section 3.0)

- *Details the fire detection required for the premises,*
- *If premises required to be linked to an alarm receiving centre in order for the soonest possible arrival of the fire and rescue service (FRS)?*
- *Where other actions are required to be taken automatically in the event the alarm is raised, are they effectively implemented and interfaces with the alarm and detection system suitably established (such as for the release of fire doors, fail safe for secured doors to open, or impacts on ventilation systems to prevent the spread of smoke etc)?*

Means of Escape (Section 4.0)

- *Details travel distances and whether the existing escape routes leading to a place of ultimate safety are suitable and sufficient for all persons at risk in the premises and the intended capacities.*

Internal Fire Spread (Section 5.0)

- *Levels of internal protection required along escape routes (including protected routes, fire doors, the treatment of service penetrations and joints in construction),*
- *Necessary measures to ensure fire separation is achieved to aid safe evacuation, and meet other fire safety objectives,*
- *Consideration of specific requirements for linings to ensure that surface flame spread is effectively minimised – is the existing compartmentation satisfactory?*

External Fire Spread (Section 6.0)

- *Analysing the possible degree of further damage should the fire spread externally via breakout, across roofs, via cladding or other materials used on the external envelope, or through the transfer of heat to adjacent buildings*

Other Factors (Sections 7.0 to 11.0)

The implementation of systems that may be used to compensate in a building with increased risks present, such as extended travel distances, limited means of escape, large compartment sizes or significant life risk which may include the following;

- *Smoke Management (Section 7.0)*
- *Sprinkler System (Section 8.0)*
- *Emergency Lighting (Section 9.0)*
- *Signage (Section 10.0)*
- *First Aid Fire Fighting (Section 11.0)*

Access and Facilities for the Fire & Rescue Service (Section 12.0)

Ensuring all provisions satisfy both the Building Regulations and the local fire authority, which includes;

- *Reviewing external vehicle access,*
- *Hydrants,*
- *and establishing if there is a requirement for rising fire mains, access points, firefighting lifts etc.*
- *Wayfinding signage,*
- *Secure Information Boxes.*

Fire Safety Management (Section 13.0)

The adopted evacuation strategy and fire safety training specific to employees addressing any specific fire risks within the premises and detailing particular duties which should be performed during an evacuation.

Company policy and procedures to be implemented, such as

- *Fire Risk Assessment,*
- *Maintenance and testing,*
- *Fire Safety checks,*
- *Planned preventative maintenance (PPM) schedules for the fire protection systems and any other relevant services,*
- *Management of contractors and creating hot work permits.*

How to Use the manual (Section 14.0)

- *Fire Strategy Manual*
- *Legislation Requirements*
- *Scope*
- *Limitations*
- *Document Control*

Applicable Legislation (Section 15.0)
A list of applicable legislation, Guidance, Codes of Practise, and relevant British Standards.

14.4 Limitations

This is a retrospective fire strategy report for this building, based on the information available at the time of preparation and a visual inspection of the building. It reflects the building as it currently is and does not support design or build requirements for future projects.

The findings, conclusions, and recommendations in this report have been made by a qualified and competent fire safety consultant. It is important to note that there may be limitations to the findings due to the inability to fully understand the construction of the building without dismantling and reconstructing parts, which is not practical. Compliance details in the report are based on the information available to the consultant at the time.

The responsibility for compliance with fire safety legislation rests with the Principle Accountable Person (PAP), and/or Accountable Person (AP), who must decide whether to accept the contents of this document. The current fire safety issues within the building are addressed in the fire risk assessment.

This document addresses life safety requirements and property protection. Any additional protection needed for property protection should be discussed by the client and those responsible for insuring the building.

The current status of fire safety issues within the building is covered by the fire risk assessment.

14.5 Document Control

This manual is a living document for this building and must be regularly updated and referenced for fire safety provision. The Contents section includes Issue Dates and Version numbers for easy updating of individual sections.

Each section also includes an Issue Date, Version number, and revision control section for clear updates. Relevant Appendices can be filed with each section for easy access to all necessary information.

Section 15.0
Applicable Legislation

Last Updated 23/09/2024: Version 1.0

Section Contents

Appendices

Type	Ref	Description
Report	Annex 1	Approved Document B Volume 1 Dwellings 2019
Gvt Document	Annexe 1b	Building Regulations 1965
Policy Document	Annex 2	Canterbury City Council Fire Safety Policy (Housing Assets)
Policy Document	Annex 3	Canterbury City Council Fire Risk Assessment Policy
FRA	Appendix 1	Fire Risk Assessment Report

Revision History

This manual section has been subject to a review and update as follows:

Revision Date	Version	Purpose of Revision	Revised by
23/09/2024	1.0	Initial report issue	DDS

15.1 Overview of Relevant Legislation

The building is subject to control under the following pieces of legislation:

a) The Building Safety Act 2022
b) Building (Amendment) Regulations 2018
c) The Building Regulations Approved Document B Volume 1 : Dwellings
d) Regulation 38 and Appendix G of the Building Regulations
e) Regulatory Reform (Fire Safety) Order 2005, Fire Safety Act 2021, Fire Safety (England) Regulations 2022
f) Statutory Consultation
g) Construction (Design and Management) Regulations 2015
h) BS 9991. Fire safety in the design, management and use of residential buildings. Code of practice

a) Building Safety Act 2022

The Building Safety Act 2022 is a piece of legislation introduced in the UK to improve the safety of high-rise residential buildings. The act includes specific requirements for blocks of flats that are over 18 meters in height, as these buildings are considered to pose a higher risk in the event of a fire or other safety hazard.

One of the key requirements for high-rise buildings is the development of a Building Safety Case. This is a detailed document that outlines how the building will be managed and maintained to ensure the safety of its residents. The Building Safety Case must include a thorough assessment of the building's design and construction, as well as its fire safety measures, evacuation procedures, and the management of any potential risks.

Additionally, the Building Safety Act 2022 mandates regular inspections and maintenance of high-rise buildings to ensure that they remain safe for occupants. Building owners are required to appoint a Building Safety Manager who is responsible for overseeing the safety of the building and coordinating any necessary maintenance or repairs.

Overall, the Building Safety Act 2022 aims to prevent tragedies such as the Grenfell Tower fire and improve the overall safety of high-rise residential buildings in the UK. By implementing stricter regulations and requirements for buildings over 18 meters in height, the act helps to protect residents and ensure that buildings are maintained to a high standard of safety.

b) Building (Amendment) Regulations 2018

The Building Regulations, produced under the Building Act 1984, is the primary legislation controlling building work and applies to the majority of new or materially altered buildings.
The fire safety requirements are given in Part B of Schedule 1 of the regulations, and make requirements for specific areas:

- B1 Means of warning and escape,
- B2 Internal fire spread (linings),
- B3 Internal fire spread (structure),
- B4 External fire spread,
- B5 Access and facilities for the fire service.

This fire strategy follows the details outlined in Approved Document B Volume 2: Buildings other than dwellings

c) The Building Regulations Approved Document B Volume 1 Dwellings 2019 incorporating 2020 and 2022 amendments – for use in England

Approved Document B addresses fire safety precautions that must be adhered to, to ensure the safety of occupants, firefighters, and those close to the building in the event of a fire.

The document covers all standards related to this, including means of escape, the ability to internally isolate a blaze to prevent a fire from spreading, external fire spread, firefighter access to the building and facilities, and fire detection and warning systems in place within a building.

It also addresses the internal spread of a fire due to the structure or lining used within a building and safety measures related to this.

In 1970, the building regulations in force for dwellings in England were governed by the Building Regulations 1965. These regulations covered various aspects of construction including structural stability, fire safety, ventilation, thermal insulation, and sanitation. Some specific requirements included a minimum ceiling height of 7 feet 6 inches, adequate ventilation in kitchens and bathrooms, and fire-resistant materials in certain areas of the building. Retrofitting older buildings to meet current building regulations may be necessary to ensure safety and compliance with modern standards. Ref:
https://www.legislation.gov.uk/uksi/1965/1373/pdfs/uksi_19651373_en.pdf

d) Regulation 38 and Appendix G of the Building Regulations

Regulation 38 of the Building Regulations requires fire safety information for a new or altered building to be passed to the responsible person at the completion of the project, or on occupation, whichever comes sooner.

The aim of this requirement is to provide the responsible person with appropriate information to assist him to operate and maintain the building in reasonable safety. This information can therefore assist the responsible person in undertaking a risk assessment, to meet the requirements of the Fire Safety Order.

e) Regulatory Reform (Fire Safety) Order 2005, Fire Safety Act 2021, Fire Safety (England) Regulations 2022

The Fire Safety Order is the primary piece of legislation relating to fire safety in existing, domestic premises, and is usually enforced by the local fire authority.

The duty of ensuring that the requirements of the order are met, rests with the 'responsible person', who must undertake a risk assessment for the purpose of identifying the fire precautions that they need to take.

The fire safety management regime should be compliant with the requirements of current legislation, namely, The Fire Safety Act 2021 and the Regulatory Reform (Fire Safety) Order 2005.

The Regulatory Reform (Fire Safety) Order (2005)
This Law came into effect on 1st April 2006, and combines all fire related health & fire safety matters into one order. This is the primary piece of fire safety legislation in the UK covering virtually every type of premises, key requirements are detailed below;

Article 4 (1) (a)
take measures to reduce the risk of fire on the premises and the risk of the spread of fire on the premises;

Article 4 (1) (c)
take measures for securing that, at all material times, the means of escape can be safely and effectively used;

Article 9 (1)
requires the provision of a Fire Risk Assessment;

Article 13 (1) (b)
to nominate competent persons to implement preventative and protective measures and ensure that the number of such persons, their training and the equipment available to them are adequate;

Article 14 (1)
Where necessary in order to safeguard the safety of relevant persons, the responsible person must ensure that routes to emergency exits from premises and the exits themselves are kept clear at all times;

Article 14 (2) (b)
in the event of danger, it must be possible for persons to evacuate the premises as quickly and as safely as possible;

Article 15 (1)
The responsible person must:

(a) establish and, where necessary, give effect to appropriate procedures, including safety drills, to be followed in the event of serious and imminent danger to relevant persons;

(b) nominate a sufficient number of competent persons to implement those procedures in so far as they relate to the evacuation of relevant persons from the premises;

Article 21 (1)
Every employer must, in entrusting tasks to employees (fire warden), take into account their capabilities as regards health and safety, so far as those capabilities relate to fire.

Fire Safety Act 2021

- The Fire Safety Act 2021 came into effect on 16 May 2022.
- The Act clarifies that where a building contains two or more sets of domestic premises, the Fire Safety Order applies to:
  - ✓ *The building's structure and external walls (including windows, balconies, cladding, insulation, and fixings) and any common parts.*
  - ✓ *All doors between the domestic premises and common parts.*

Fire Safety (England) Regulations 2022

- Following the devastating Grenfell Tower Fire in 2017, the Grenfell Tower Inquiry was established. To meet the Inquiry's Phase 1 recommendations, the Fire Safety (England) Regulations 2022 (the Regulations) were introduced.
- Unlike the Fire Safety Act 2021 which applies to England and Wales, the Fire Safety (England) Regulations 2022 only apply to England.
- The Fire Safety (England) Regulations 2022 came into effect on 23 January 2023. In all multi-occupied residential buildings, the regulations require responsible persons to provide residents

with fire safety instructions and information on the importance of fire doors. The regulations apply to existing buildings, and requirements for new buildings may be different.

In high-rise residential buildings, responsible persons are required to:

- Building plans: provide their local Fire and Rescue Service with up-to-date electronic building floor plans and to place a hard copy of these plans, alongside a single page building plan which identifies key firefighting equipment, in a secure information box on site.
- External wall systems: provide to their local Fire and Rescue Service information about the design and materials of a high-rise building's external wall system and to inform the Fire and Rescue Service of any material changes to these walls. Also, they will be required to provide information in relation to the level of risk that the design and materials of the external wall structure gives rise to and any mitigating steps taken.
- Lifts and other key firefighting equipment: undertake monthly checks on the operation of lifts intended for use by firefighters, and evacuation lifts in their building and check the functionality of other key pieces of firefighting equipment. They will also be required to report any defective lifts or equipment to their local Fire and Rescue Service as soon as possible after detection if the fault cannot be fixed within 24 hours, and to record the outcome of checks and make them available to residents.
- Information boxes: install and maintain a secure information box in their building. This box must contain the name and contact details of the Responsible Person and hard copies of the building floor plans.
- Wayfinding signage: to install signage visible in low light or smoky conditions that identifies flat and floor numbers in the stairwells of relevant buildings.

In residential buildings with storeys over 11 metres in height, responsible persons are required to:

- Fire doors: undertake annual checks of flat entrance doors and quarterly checks of all fire doors in the common parts.

Further information was published by the National Fire Chiefs Council which sets out a Code of Practice for the Provision of Premises Information Boxes in Residential Buildings *(Ref : https://nfcc.org.uk/wp-content/uploads/2023/08/PIBS_Guide_06-21_V2.pdf)*

f) Statutory Consultation

During the Building Regulations application process, the Building Control body is required to formally consult with the Local Fire Authority.

The purpose of this consultation is to give the Fire Authority the opportunity to make observations with respect to the Building Regulations and to provide opportunity to make the applicant aware of action that may have to be taken to meet the requirements of the Fire Safety Order.

The consultation should allow both parties to reach mutually compatible views on whether the building meets the requirements of both pieces of legislation.

In the exceptional event that the fire authority proposes to require physical changes to the building to meet the requirements of the Fire Safety Order, the Building Control body should make the applicant aware.

g) Construction (Design and Management) Regulations 2015

Projects undertaken in the UK are subject to the requirements of the Construction (Design and Management) Regulations 2015.

h) BS 9991. Fire safety in the design, management and use of residential buildings.

Code of practice

15.2 Summary Links for Relevant Legislation

The table below is intended to provide a summary of relevant legislation and links to further information.

Full Name	Abbreviation	Content
Building Safety Act 2022	BSA	https://www.legislation.gov.uk/ukpga/2022/30/contents/enacted
Fire Safety Act 2021	FSA	https://www.legislation.gov.uk/ukpga/2021/24/introduction/enacted
Fire Safety (England) Regulations 2022	FSER	https://www.gov.uk/government/publications/fire-safety-england-regulations-2022
Regulatory Reform (Fire Safety) Order 2005, England and Wales	RRO 2005/FSO	http://www.legislation.gov.uk/uksi/2005/1541/contents/made
Fire Safety (Employees' Capabilities) (England) Regulations 2010		http://www.legislation.gov.uk/uksi/2010/471/contents/made
The Building Safety Act 2022	BSA	https://www.gov.uk/guidance/the-building-safety-act
Health and Safety at Work etc Act 1974	HSWA	http://www.legislation.gov.uk/ukpga/1974/37/contents
Management of Health and Safety at Work Regulations 1999	MHSWR, HSG65	http://www.legislation.gov.uk/uksi/1999/3242/contents
Construction (Design and Management) Regulations 2015	CDM 2015	http://www.legislation.gov.uk/uksi/2015/51/contents/made
Control of Substances Hazardous to Health Regulations (COSHH) 2002	COSHH	http://www.legislation.gov.uk/uksi/2002/2677/contents/made
Dangerous Substances and Explosive Atmospheres Regulations 2002	DSEAR	http://www.legislation.gov.uk/uksi/2002/2776/contents/made

15.3 Summary Links for Relevant Guidance

The table below is intended to provide a summary of relevant guidance that may be referred to in this document and links to further information.

Source	Document	Link
HM Government	June 2022 amendments to Approved Document B, volume 1 and volume 2	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1080214/ADB_amendment_booklet_June_2022.pdf
HM Government	Approved Document B (fire safety) volume 1: Dwellings, 2019 edition incorporating 2020 amendments for use in - England	https://assets.publishing.service.gov.uk/media/639ae7e98fa8f5069839c7d7/Approved_Document_B__fire_safety__volume_1_-_Dwellings__2019_edition_incorporating_2020_and_2022_amendments.pdf
HM Government	Approved Document B (fire safety) volume 2: Buildings other than dwellings, 2019 edition incorporating 2020 and 2022 amendments for use in - England	https://assets.publishing.service.gov.uk/media/639ae876e90e0721839ea637/Approved_Document_B__fire_safety__volume_2_-_Buildings_other_than_dwellings__2019_edition_incorporating_2020_and_2022_amendments.pdf
HM Government	Building (Amendment) Regulations 2018	https://www.legislation.gov.uk/uksi/2018/1230/regulation/2/made

HM Government	Regulation 38 and Appendix G of the Building Regulations	https://www.legislation.gov.uk/uksi/2010/2214/regulation/38/made
HM Government	Advice for Building Owners of Multi-Storey, Multi-Occupied Residential Buildings	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/869532/Building_safety_advice_for_building_owners_including_fire_doors_January_2020.pdf
National Fire Chiefs Council	Code of Practice for the Provision of Premises Information Boxes in Residential Buildings	https://nfcc.org.uk/wp-content/uploads/2023/08/PIBS_Guide_06-21_V2.pdf
HM Government	Building Safety Programme; Advice Note	https://www.gov.uk/guidance/building-safety-programme
Insulated Render and Cladding Association	INCA Technical Guide 01 - Fire Protection Requirements for EW1 Systems	https://www.inca-ltd.org.uk/wp-content/uploads/2016/09/INCA-Technical-Guide-01-Fire-PR-for-EWI-Systems.pdf
British Standards Institute (BSI)	BS9991:2015 Fire Safety in the Design, management and use of Residential Buildings	https://shop.bsigroup.com/ProductDetail?pid=000000000030351309
British Standards Institute (BSI)	BS 1703 Refuse Chute Standards	https://shop.bsigroup.com/ProductDetail?pid=000000000030085946
British Standards Institute (BSI)	BS 476:Part 22 1987 Fire tests on building materials and structures	https://shop.bsigroup.com/ProductDetail?pid=000000000030296646
British Standards Institute (BSI)	BS 5266-1:2016 Emergency Lighting Part 1	https://shop.bsigroup.com/ProductDetail?pid=000000000030390691
British Standards Institute (BSI)	BS 5306-3:2017 Fire extinguishing installations and equipment on premises Part 3	https://shop.bsigroup.com/ProductDetail?pid=000000000030390692
British Standards Institute (BSI)	BS 5306-8:2012 Fire extinguishing installations and equipment on premises Part 8	https://shop.bsigroup.com/ProductDetail?pid=000000000030152566
British Standards Institute (BSI)	BS 5306-9:2015 Fire extinguishing installations and equipment on premises - Part 9	https://shop.bsigroup.com/ProductDetail?pid=000000000030295811
British Standards Institute (BSI)	BS 5499-4:2013 Safety signs Part 4	https://shop.bsigroup.com/ProductDetail?pid=000000000030393661
British Standards Institute (BSI)	BS 5839-1:2017 Fire detection and fire alarm systems for buildings Part 1	https://shop.bsigroup.com/ProductDetail?pid=000000000030373864
British Standards Institute (BSI)	BS 5839-6:2019 Fire detection and fire alarm systems for buildings - Part 6	https://shop.bsigroup.com/ProductDetail?pid=000000000030370704
British Standards Institute (BSI)	BS 5839-8:2013 Fire detection and fire alarm systems for buildings - Part 8	https://shop.bsigroup.com/ProductDetail?pid=000000000030258719
British Standards Institute (BSI)	BS 5839-9:2021 Fire detection and fire alarm systems for buildings Part 9	https://shop.bsigroup.com/ProductDetail?pid=000000000030187282
British Standards Institute (BSI)	BS 6266:2011 Fire protection for electronic equipment installations	https://shop.bsigroup.com/ProductDetail?pid=000000000030189448
British Standards Institute (BSI)	BS 7273-4 Code of practice for the operation of fire protection measures - Part 4	https://shop.bsigroup.com/ProductDetail?pid=000000000030289000

British Standards Institute (BSI)	BS 7273-6:2019 Code of practice for the operation of fire protection measures - Part 6	https://shop.bsigroup.com/ProductDetail?pid=000000000030372524
British Standards Institute (BSI)	BS 7858:2019 Screening of individuals working in a secure environment - Code of practice	https://shop.bsigroup.com/ProductDetail?pid=000000000030380861
British Standards Institute (BSI)	BS 8473:2018 Intruder and hold-up alarm systems - Management of false alarms - Code of practice	https://shop.bsigroup.com/ProductDetail?pid=000000000030377657
British Standards Institute (BSI)	BS 8484:2016 Provision of lone worker services	https://shop.bsigroup.com/ProductDetail?pid=000000000030322702
British Standards Institute (BSI)	BS 8591:2014 Remote centres receiving signals from alarm systems	https://shop.bsigroup.com/ProductDetail?pid=000000000030286750
British Standards Institute (BSI)	BS 9999:2017 Fire safety in the design, management and use of buildings	https://shop.bsigroup.com/ProductDetail?pid=000000000030357099
British Standards Institute (BSI)	BS EN 15004-10:2017 Fixed firefighting systems - Gas extinguishing systems	https://shop.bsigroup.com/ProductDetail?pid=000000000030339880
British Standards Institute (BSI)	BS EN 15004-1:2019 Fixed firefighting systems - Gas extinguishing systems - Part 1	https://shop.bsigroup.com/ProductDetail?pid=000000000030339865
British Standards Institute (BSI)	BS EN 50131-8:2019 Alarm systems - Intrusion and hold-up systems - Part 8	https://shop.bsigroup.com/ProductDetail?pid=000000000030350086
British Standards Institute (BSI)	BS ISO 45001:2018 Occupational health and safety management systems - Requirements with guidance for use	https://shop.bsigroup.com/ProductDetail?pid=000000000030299985
British Standards Institute (BSI)	PAS 79:2020 Fire Risk Assessment. Guidance and a recommended methodology	https://shop.bsigroup.com/ProductDetail?pid=000000000030251919
British Standards Institute (BSI)	PAS 9980:2022 Fire risk appraisal of external wall construction and cladding of existing block of flats - Code of Practice	https://shop.bsigroup.com/products/fire-risk-appraisal-of-external-wall-construction-and-cladding-of-existing-blocks-of-flats-code-of-practice/standard

Section 16.0
Annex

Last Updated 23/09/2024: Version 1.0

Annex Documentation

Type	Ref	Description	Access
Gvt Document	Annex 1	Approved Document B Volume 1 Dwellings 2019	https://assets.publishing.service.gov.uk/media/639ae7e98fa8f5069839c7d7/Approved_Document_B__fire_safety__volume_1_-_Dwellings__2019_edition_incorporating_2020_and_2022_amendments.pdf
Gvt Document	Annexe 1b	Building Regulations 1965	https://www.legislation.gov.uk/uksi/1965/1373/pdfs/uksi_19651373_en.pdf
Policy Document	Annex 2	Canterbury City Council Fire Safety Policy (Housing Assets)	Policy Document
Policy Document	Annex 3	Canterbury City Council Fire Risk Assessment Policy	Policy Document
Report	Annex 3	BS5839 Part 1	https://shop.bsigroup.com/ProductDetail?pid=000000000030373864
Report	Annex 4	BS5839 Part 6	https://shop.bsigroup.com/ProductDetail?pid=000000000030370704
FRA	Appendix 1	Fire Risk Assessment Report	Included in this section
Report	Appendix 2	Cause and Effect Report	Included in this section
Report	Appendix 3	Fire Alarm Commissioning Certificate	Included in this section
Report	Appendix 4	Flats Fire Detection Commissioning Certificate	Included in this section
Report	Appendix 5	Structural Survey	Included in this section
Report	Appendix 6	Fire Risk Assessment External Wall (FRAEW)	Included in this section
Report	Appendix 7	AOV Commissioning Certificate	Included in this section
Report	Appendix 8	Previous Fire Risk Assessment Report dated 17/01/2024	Included in this section
Email	Appendix 9	Email from Canterbury City Council 27/07/2023	Included in this section

Revision History

This manual section has been subject to a review and update as follows:

Revision Date	Version	Purpose of Revision	Revised by
23/09/2024	1.0	Initial report issue	DDS