ARDENLEA
FIRE CONSULTING LIMITED

Fire Statement.

To Support Planning Application for

Extension of basement to accommodate additional cultural centre accommodation (use class F1 and F2), replacement of second floor at rear to accommodate offices (class E1) and conversion of front part of building at second and third floor levels to create 2 x studio dwellings.

25 Old Gloucester Street
London
WC1N

August 2023

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1 Introduction

1.1 This proposed development recognises and embraces the principles and spirt of the London Plan published by the Mayor of London.

1.2 Specifically, this report explains how the design meets the objective of Policy D11 relating to Safety, Security and Resilience to Emergency. It also incorporates aspects of the fire strategy that explains how measures relating to the fire safety aspects referred to in sections D12 A & B will be included in the design. Furthermore, the access and means of escape provision for mobility impaired persons embraces the vision of Policy D5 for inclusive design.

1.3 The developers of this scheme also recognise the ongoing concerns of residents of single private dwelling apartments towards fire safety related aspects. Specifically, the requirement for clear and unambiguous specification of non-flammability of the construction materials and the ongoing arrangements for management and support of fire safety matters; to demonstrate their intention in this respect.

2 The Existing Building.

2.1 In this report the proposed development is also referred to as the proposed premises or building.

2.2 This existing building is set within a terraced row off Old Gloucester Street. It is constructed of brickwork, and it has a decorative front elevation section with a decorative façade that currently extends across ground, first, second and third floor levels-this being about 35% of the building footprint.

2.3 The building has a rear section consisting of approximately 65% of the whole premises footprint and this is set across ground and first floor level with a glass covered terrace area at second floor level. (See photograph below).

An Aerial View of the Existing Building.

2.4 The basement level extends from the front facade elevation, and this is set across approximately 65% of the ground floor footprint.

2.5 The front facade section of the building has a tiled pitched roof and there is stepped access from the pavement to the main entrance door on the right-hand side of the front elevation (looking from the road). There is also stepped access to the main entrance door on the left-hand side of the front elevation from the pavement.

2.6 To the rear- right hand side; looking from the front elevation pavement area – there is a steel external staircase that is shared with adjacent premises. This discharges into an enclosed area between number 25 and the adjacent building. There is a final exit fenced gate that leads from the enclosure (where the base of the external staircase discharges)-onto Old Gloucester Road pavement. It is expected that there is a legal agreement for shared use of this external staircase.

2.7 There is also a gate leading from the pavement (on the front elevation) onto a steel staircase that leads to an entrance door into the basement area.

2.8 The building has a grade 2 Heritage status.

3 The Proposed Refurbishment & Development.

3.1 This development is a refurbishment of the existing building from basement to first-floor level with the addition of the second-floor space office space and extension to the rear external staircase.

3.2 As part of this development a lift will be provided on the rear elevation of the building footprint, serving basement, ground, first and second floor spaces. This will provide access to all these floor levels and suitable egress as part of the means of escape. Fire refuge areas will be created within the fire resisting lobby leading into the lift at each of these floor levels.

3.3 The basement area of this building was previously used as a canteen and kitchen for the College that was formerly on this site. The proposal as part of this refurbishment is to re-establish, at basement level, a dining hall and commercial kitchen and to provide a space for provision of the building plant and services.

3.4 A fixed firefighting suppression system will be provided within the commercial kitchen to enhance the fire resilience of this building.

3.5 The means of escape from the dining hall at basement level will be via a final exit door to the rear and then via the original light wells to discharge via a staircase externally at ground floor level into the side courtyard.

3.6 The new staircase to be configured on the front elevation of the building will serve basement level but it will only be used for circulation purposes to this level from ground floor.

3.7 The space at ground floor level will be refurbished to be an open plan main hall with means of escape in 2 directions: One of these exit routes is via a ground floor walkway above the light wells into the side courtyard. The other to the front of the building via the main staircase lobby; then to a final exit via the two sets of double doors leading respectively onto Old Gloucester Street and also into the side courtyard.

3.8 A shrine area will also be developed at the rear of the building off the main hall at ground floor level.

3.9 The first floor will be refurbished as a lecture hall with means of escape in 2 directions: One via the storey exit to the rear elevation leading onto the existing external steel staircase and then into the side courtyard. Exit to the front of the building will be via the new staircase that is to be installed leading to the double door final exit doors from the ground floor lobby.

3.10 Priest welfare facilities will be provided as part of the first-floor refurbishment.

3.11 An office space is to be created at second floor level: This is designed to be open plan, with access and egress via an extension to the steel external staircase currently located on the side elevation.

3.12 A self-contained apartment will be established at second and third floor levels respectively with access via a dedicated protected staircase and entry door to be created directly off Old Gloucester Road.

3.13 The plans on which this fire statement is based are shown in section 14 of this report.

4 Fire Strategy and Building Design

4.1 The design of the non-residential areas of this development is based on the principles contained within Approved Document B: Volume 2 and it fully embraces the fire design requirements within this publication.

4.2 The fire strategy for the non-residential areas will be full and simultaneous evacuation upon operation of the fire alarm system.

4.3 The disposition and width of entrance and exit doors in the non-residential aspects will support suitable means of escape for a maximum occupancy of the dining hall will be not be more than 60 persons.

4.4 The main hall at ground floor level and the lecture hall at first-floor level will both have an individual maximum occupancy of 100 people and the Open Plan office area at second-floor level have a maximum occupancy of not more than 30 people.

4.5 Horizontal egress distances in single and two directions along with provision for vertical egress via protected staircases is in accordance with the standard fire design documents referred to in this report.

4.6 The height from access level to the new office floor, to be created at second floor level, is 10.5m. This facilitates suitable egress via a single staircase. The external staircase from the office area will be given a weatherproof enclosure.

4.7 The new external staircase will be provided with fire protection across its envelope, adjacent to the building.

4.8 A fire alarm system in accordance with British Standard 5839: Part1 with manual fire alarm call points adjacent to storey exit and final exit doors will be provided across the non-residential areas of the development. This will be augmented by the provision of automatic fire detection, to L2 coverage in accordance with this British Standard.

4.9 Flashing beacons will be included as part of the fire alarm sounder bases to alert persons who may have a sensory impairment, to the operation of this fire alarm system.

4.10 The fire alarm will be monitored out of hours with provision of a keyholder response to further enhance the fire resilience of the development.

4.11 The Part 1 fire alarm system to be installed across the non-residential areas will have no interconnection to the self-contained apartments on the second or third floor levels. This will ensure the Stay Put or Defend in Place fire strategy is not compromised.

4.12 The design of the apartment development at second and third floor levels is based on the principles contained within Approved Document Volume 1 and fully embraces the fire design requirements within this publication.

4.13 The fire strategy for the self-contained apartments within this development embraces a **Defend in Place or stay put** response to any fire event in a single flat. This will be supported within the design by relevant protective and preventive fire safety arrangements.

4.14 The Principal Designer for this project recognises that to underpin the building regulation application; a bespoke fire strategy document will be required to provide comprehensive and specific focus to all fire safety arrangements. This will be produced by a competent fire engineer who has the experience and qualifications to provide the necessary information to relevant stakeholders and enforcing bodies.

4.15 Each of the self-contained apartments are situated across a single floor level. The means of escape from these flats will be supported by a protected hallway design, being of not more than 9m in length leading to the front apartment (entrance) door.

4.16 Horizontal means of escape from the apartments is directly onto the protected residential staircase.

4.17 Each flat will be provided with self-contained electrical fire detection provision; based on LD2 configuration, with a battery backup, conforming to British Standard 5839 Part 6 Grade D type. This will reduce the opportunity for the detectors to be compromised by any type of tampering.

4.18 Primary lighting will also be provided to cover all areas of the development, both internally and externally. It will operate based on PIR activation. This will ensure exit/circulation routes are always illuminated whenever staff, visitors, residents, or fire fighters use them.

4.19 External primary lighting will also be configured to be illuminated based on a seasonal time switch to ensure that there is external illumination during all hours of darkness, for security and fire evacuation purposes.

4.20 Self-contained emergency lighting units that operate in non-maintained mode will be provided across all areas of the development. Along with fire exit signs combined with maintained type units. Non maintained emergency lighting will also be provided in the common staircase leading to the apartments. Emergency lighting will cover the points of emphasis in accordance with British Standard 5266 Part 1. This specification will be to provide at least 3 hours illumination in the case of a mains or sub circuit failure. This will provide a suitable time for the emergency lighting illumination to support evacuation of the apartment development, if fire crews consider this to be necessary during any phase of firefighting response.

5 Inclusive design.

5.1 A single lift has been included on the era of the development footprint in the non-residential areas of the development. It will serve all floors basement to second floor level respectively This will ensure that the development has an inclusive design, such that mobility impaired persons are able to gain access to all non-residential areas and floor levels. The lift will be configured for use as part of the escape strategy by mobility impaired persons. Specifically, it will be provided with a duplicate electrical power supply and a facility for control from ground level with provision of a voice speech intercom at each landing and within the lift car itself. This will enable the lift to be used for egress for mobility impaired persons.

6 Fire Compartmentation

6.1 There will be imperforate horizontal fire compartmentation of at least 60 minutes between the non-residential and residential areas of the building. There will also be 60-minute vertical fire resistance between the relevant purpose group areas across the building.

6.2 Full fire compartmentation enclosure of individual apartments to a performance standard of 60 minutes based on British Standard 476 Part1 will be provided to comply with the fire design requirements of Approved Document B Volume 1. This includes fire compartmentation and protection to the dedicated residential staircase enclosure in order to support vertical means of escape for apartment occupants making their egress from any fire event. The fire compartmentation is also to support firefighting activities of attending fire crews. This is based on fire fighters using the staircase enclosures and associated lobby areas for protection.

6.3 An audit trail of the fire related performance standards for the constituent construction materials used to establish the fire compartmentation will be undertaken. Furthermore, a photographic register - cross referenced to the building fire design plans will also be maintained as a compartmentation asset register. Collectively these details will be included as part of the Operational and Maintenance Manual (O&M Manual) to be provided to the client by the principal contractor/principal designer upon the conclusion of the development, along with a copy of the Final or Completion Certificate relating to building regulation compliance. This fire related documentation will be made available to the fire risk assessor. It will provide underpinning evidence to inform the risk assessment process and remove the necessity for an intrusive audit to be carried out in relation to the fire compartmentation aspects.

6.4 Fire doors across the development are also an integral part of the fire protective measures and consequently fire compartmentation provision for the building. Fire doors, the associated frame into which they are fitted, along with the relevant certification of the door ironmongery will be obtained and cross referenced to the fire strategy plan for the building. On site installation of the fire doors will be undertaken by competent contractors who are able to certify that the work conforms to British Standard 8214.

6.5 The importance of fully maintained and serviceable self-closing fire doors is recognised as being imperative to the fire compartmentation integrity of individual flats, the fire strategy for the building and consequently to the ultimate safety of the apartment occupants from fire. With provision of any necessary maintenance of the flat entrance door, on at least an annual basis. This will underpin the provision and maintenance of building fire doors as facilitated by the Fire Safety (England) Regulations 2022 which came into force earlier this year.

6.6 Letter boxes will not be included within individual apartment entrance fire door design; instead, a fully enclosed fire protected postal collection facility for each individual flat will be provided in the entrance foyer area of this development.

7 Fire Appliance Access and Arrangements for the Fire Service

7.1 An electrically operated automatic opening vent (AOV) will be provided at the head of the protected staircase itself. This will be operated by smoke detection located within the residential staircase. A fire alarm system based on a design conforming to British Standard 5839 Part1 with L5 coverage will be installed solely within the residential staircase enclosure of this development. This system will have no sounder units and no interconnection to the Part 6 fire alarm systems to be provided within individual apartments and it will not be connected to the Part1 fire alarm system to be provided within the non-residential areas of the development.

7.2 Clearly marked firefighter switches will be provided for attending fire crews to control operation of the smoke vents as necessary as part of their firefighting tactics.

7.3 There is a fire service access from the adjacent public highway (Old Gloucester Street) onto the front elevation of the development. From where there is access to the 2 residential apartment footprints at each floor level. This is within 45m, along a route suitable for laying firefighting hose and from the location where a fire service pumping appliance can park on Old Gloucester Road.

7.4 It is recognised that there is likely to be a fire hydrant on the public roadway, within 90m of the main access door into the development at both ground floor level to non-residential and residential entrance doors respectively.

7.5 A coded override will be provided for the fire service to gain access into the protected staircase at ground floor level in order that they can access individual apartment front doors. The details of this code will be provided to the London Fire Brigade for retention on their operational command system to facilitate fire crew access. No Gerda key override switch provision will be installed on the outside of the building for crews to gain access as this is considered to be a degradation of security provisions given the perveance of these keys in the wider community.

7.6 Plans of the development showing the location of the water and electrical shut off locations across the building, will be provided for the benefit of attending fire crews. These will be located within a ***Gerda fire information box;*** This is to be located externally adjacent to the front elevation leading onto the development.

8 Fire Assembly & Full Evacuation Arrangements

8.1 Simple pictorial based fire action notices will be provided adjacent to the fire alarm call points within the non-residential areas of this development. The fire emergency plan for the building will be based on investigation, confirmation of a fire event and then evacuation /sweeping of the non-residential areas. With a staff muster location at a nominated landmark in the vicinity. This location will be accessible without crossing public roads. Staff members will be trained as fire wardens to implement and manage the fire emergency plan and the fire management protocol will require rehearsal of the fire emergency plan on at least a six-monthly basis.

9 Sprinkler Provision.

9.1 The upper most floor level of the residential apartment block is 11.3m from access level. Consequently, there is a statutory obligation, to satisfy fire design requirements for building regulation purposes, to install sprinklers within the two apartments.

9.2 Therefore, a domestic standard sprinkler designed in accordance with British Standard 9251 Category 2 sprinklers will be provided: With flow calculations based on 1 or 2 sprinklers heads operating and with an average flow of 84-100 litres/minute.

10 Security Arrangements

10.1 This development has been designed by embracing the principles contained within Home Office guidance & Metropolitan Police documents to *Design out Crime* to reduce the likelihood of opportunist crime.

10.2 To provide enhanced security controls on the entrance door to the apartment aspect of the development an electronic looking device will be provided on the entrance door into the residential staircase. This will be overridden either mechanically or via a burst out box provision for means of escape from the building. All flat occupants will be provided with an individual coded entry fob. Entry into the building for visitors will be apartment occupant controlled via an intercom, with video link located on the main entrance foyer door. This will reduce the opportunity for unauthorised access into the building and considerably reduce the opportunity for deliberate ignition in any of the common areas.

10.3 Security surveillance and crime prevention provision for the development will extend to the provision of CCTV in the common internal areas and externally to cover the doors into the building. This system will initially be recorded but not monitored however an interconnection facility for remote monitoring will be provided to facilitate linking to a monitoring station if the local area crime profile changes.

11 Fire Safety Management

11.1 An inspection condition regime appertaining to all fire doors within the building will be undertaken by a competent person on a quarterly basis and this will be underpinned by the fire door asset register. This will be an integral part of the fire safety governance arrangements and the time periods and schedules for these checks, along with function testing of the firefighter ventilation provision, the emergency lighting units will be documented as a fire policy for the development by the managing agent.

11.2 Article 13 of the RRFSO requires a “where necessary” consideration to be given to the provision of portable firefighting equipment in the common areas (parts of the building controlled by the RRFSO). Recognising that apartment residents will not be required to use portable firefighting equipment to make their egress from the building and taking account of the government guidance that portable fire extinguishers should not be provided within individual domestic environments; because they are likely to expose occupants to an increased risk of injury, whilst also delaying their egress. Subsequently no portable firefighting equipment will be provided in the common areas of this development.

11.3 Portable firefighting equipment will be provided across the non-residential areas of the building, and these will be located adjacent to all storey and final exit doors. Foam and Carbon Dioxide type units will be selected.

11.4 Once completed the self-contained apartments have been completed they will be subject to control under the Housing Act 2004. To this end the ongoing maintenance and governance arrangements required to maintain safe domestic fire safety arrangements will be provided by the building manager. This will be done specifically by regular contact with the apartment residents using national fire preventive guidance materials issued by the Home Office and supported specifically within communities by the London Fire Brigade Borough fire safety teams and response crews. This safer community partnership will be complemented by publication of regular fire and safety bulletins to apartment residents and drop-in sessions to provide additional support where necessary, and to listen to any safety security concerns these persons may have.

12 Construction Phase

12.1 Preplanning fire related arrangements for the construction phase of this development recognises that all fire safety for this aspect is controlled simultaneously by the RRFSO and the Construction Design Management Regulations 2015 (CDM Regs) which are enforced on a duality basis by the Health and Safety Executive. Consequently, Competent Person support will be given by the fire engineer to the Principal Contractor to ensure effective and resilient protective and preventive fire safety measures and an effective fire emergency plan is provided for the workforce during the construction phase. It will also ensure that suitable fire safety provisions are made on and around the construction site to support the activity of the fire service if they are called to an incident whilst the development is under construction.

13 Statutory Fire Compliance

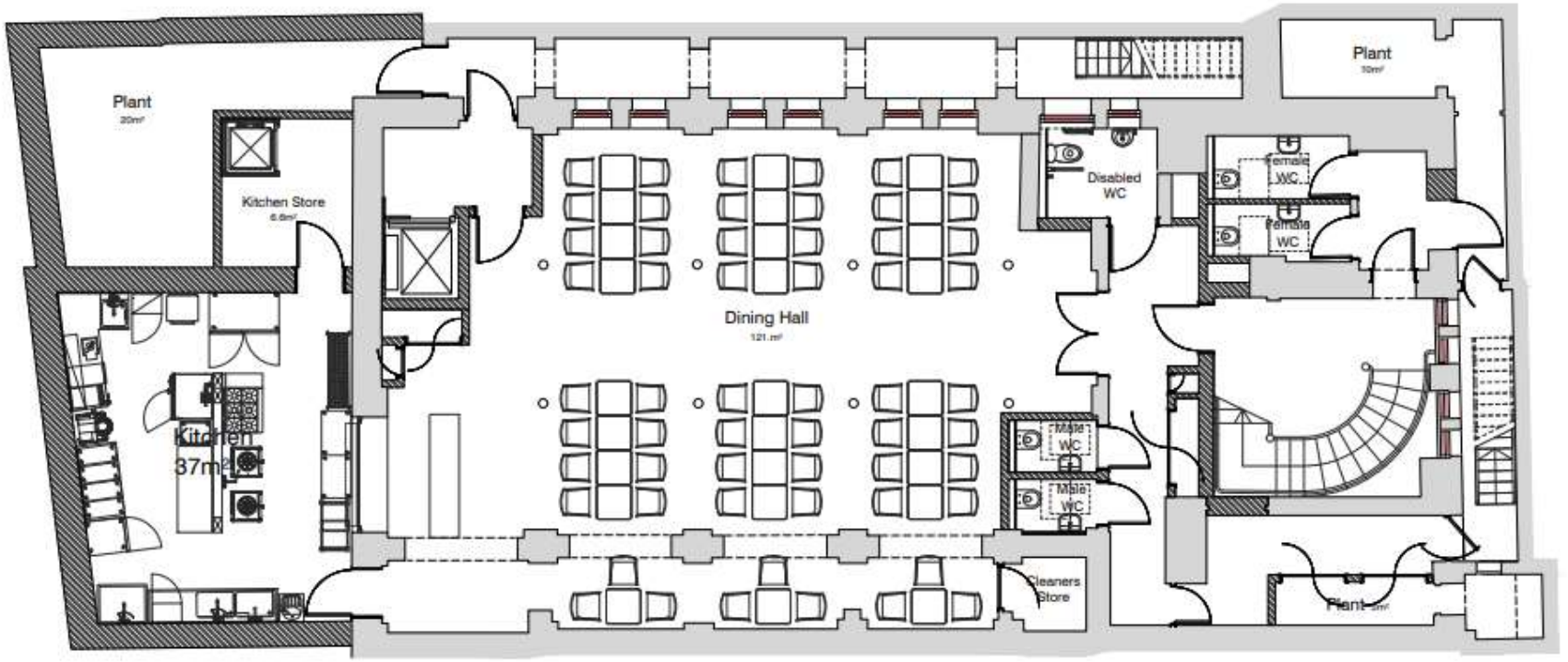
13.1 Upon completion of the building refurbishment and once it is occupied the Regulatory Reform (Fire Safety) Order 2005 (RRFSO) applies to all areas of the non-residential aspects and to the common areas of the apartment, this being the main staircase enclosure and external common areas. Furthermore Article 31 (10) of the RRFSO also applies to control the fire risk posed by the individual domestic dwellings.

13.2 The protocol for satisfying the RRFSO is risk assessment underpinned by self-compliance. This legislation is enforced, in respect of the residential aspects of this building, by the London Fire Brigade as part of the local authority LACORS audit agreement to make all multi occupied buildings safe from fire.

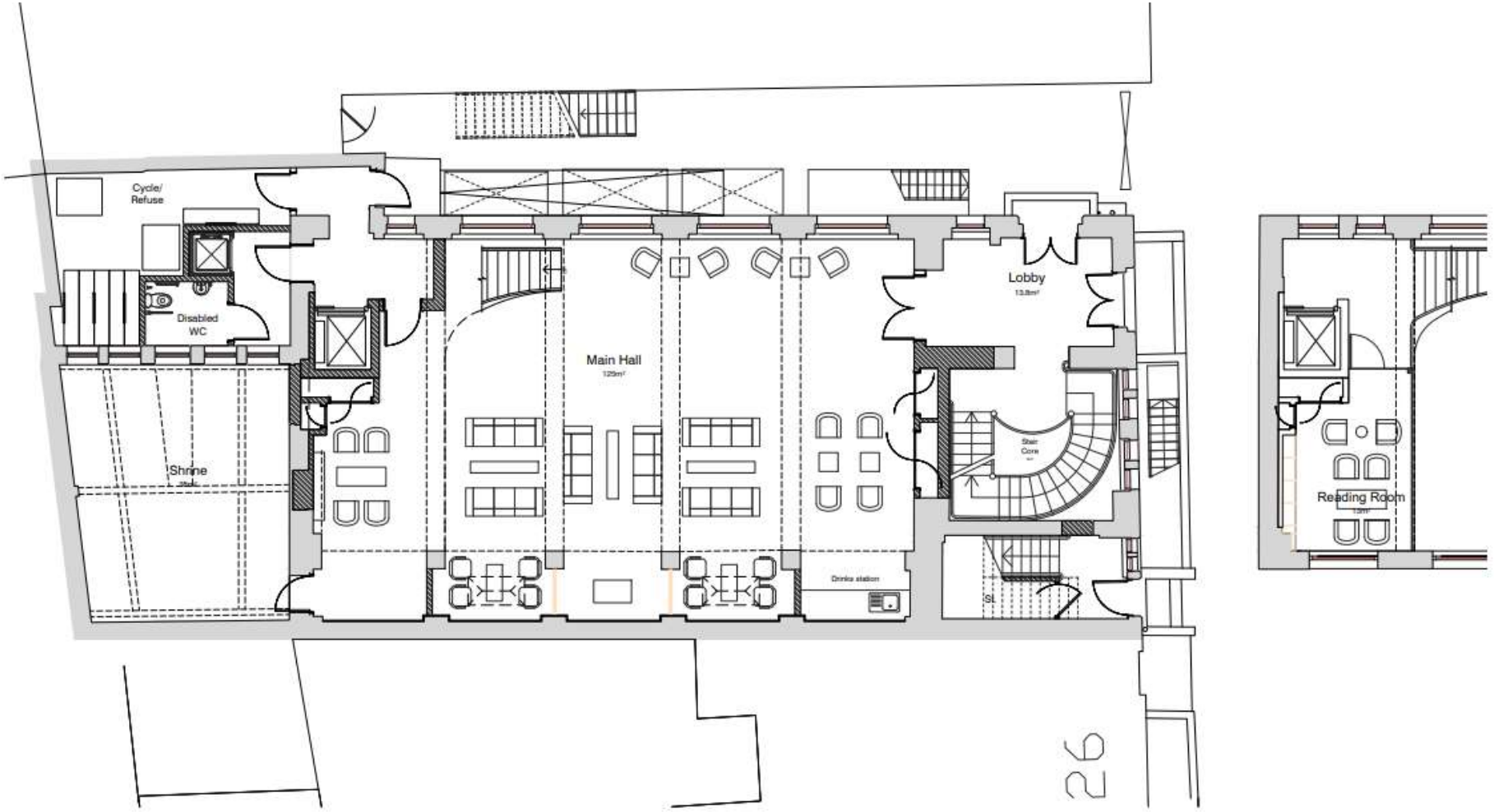
13.3 The approval for fire design of this building is controlled by Building Regulations 2010. The responsibility for this is discharged to local borough council building control department or through a private company known as an Approved Inspector also known as an A.I. As part of the building regulation process, full details of all fire safety information relating to this development is required to be provided. This is necessary in order to satisfy Regulation 38 of Building Regulations and enable the London Fire Brigade to consider the project as part of their statutory consultation obligations to the relevant building control authority.

14 Fire Strategy Plans

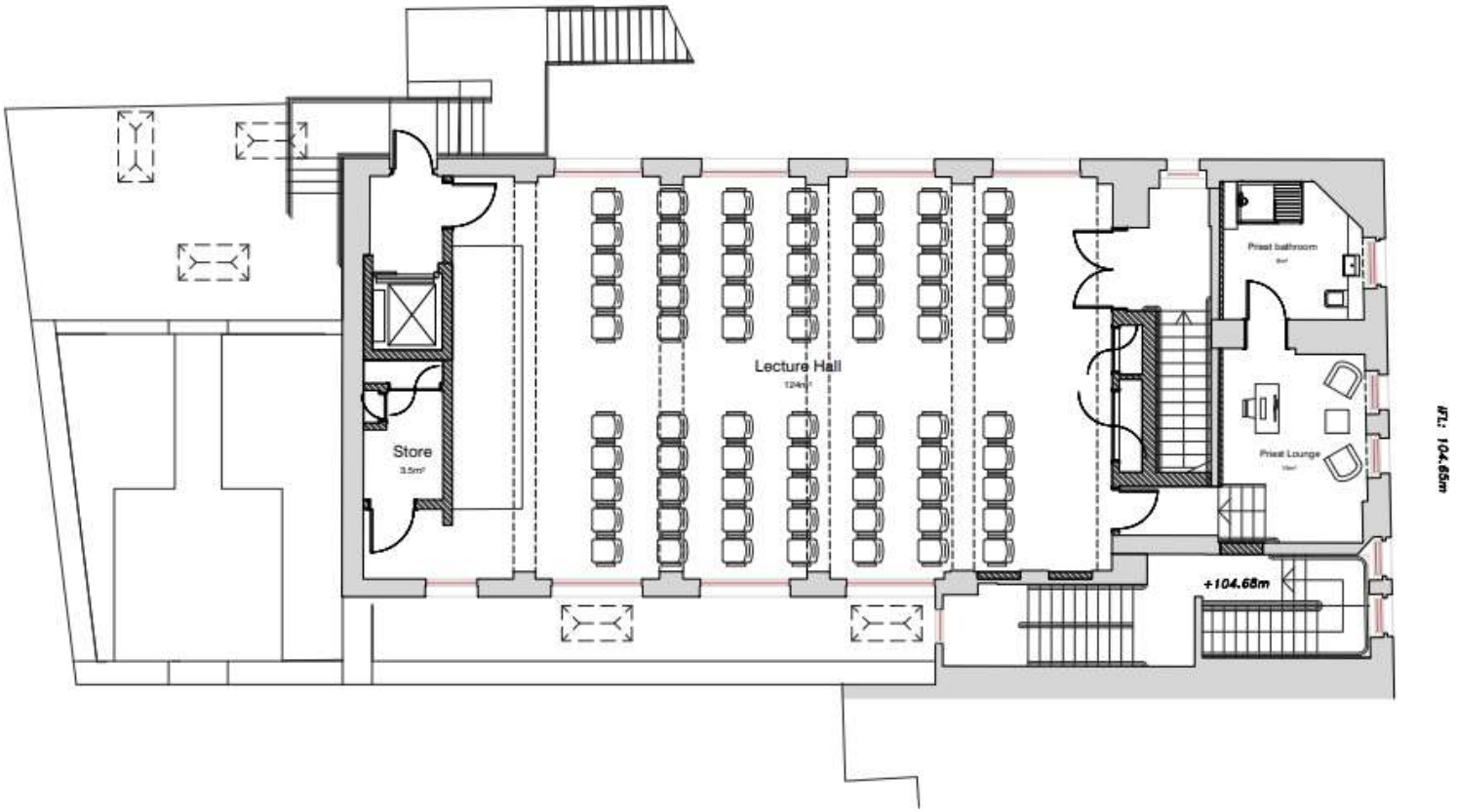
14.1 Basement floor plan



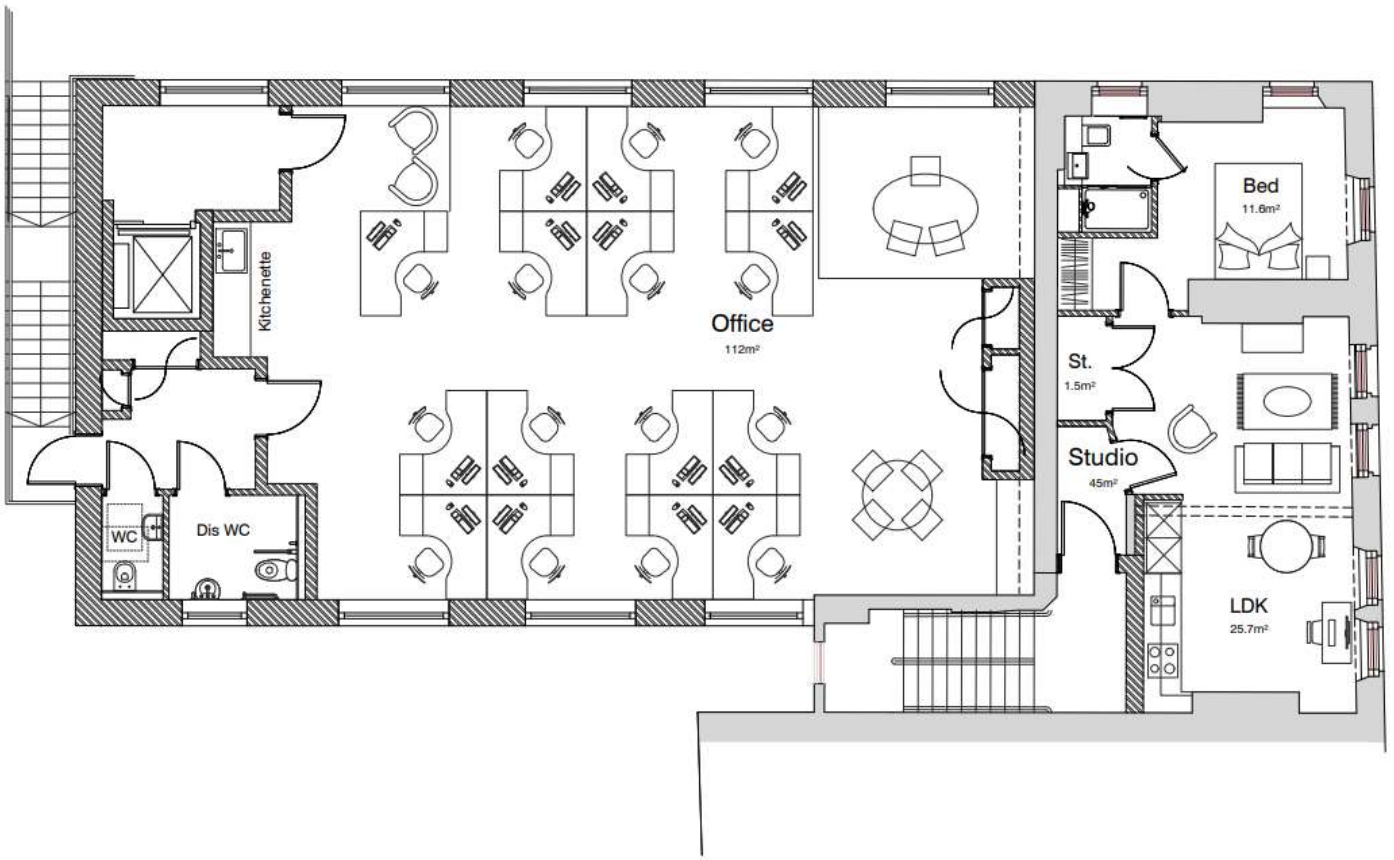
14.2 Ground floor plan.



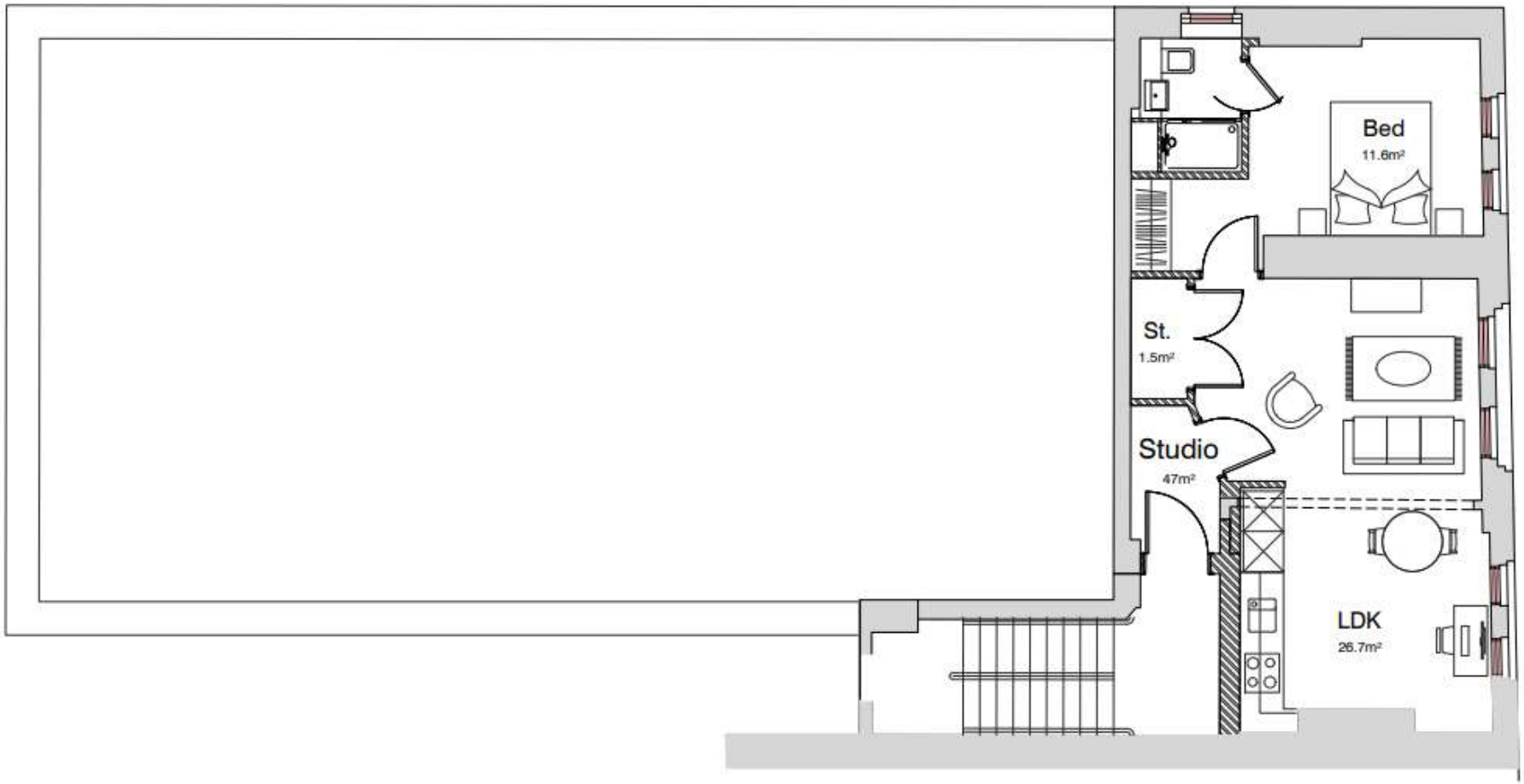
14.3 First Floor plan.



14.3 Second Floor plan.



14.3 Third Floor plan.



Appendix 1 Chris Bailey - Curriculum Vitae

I am currently a director and the Senior Consultant at Ardenlea Fire Consulting Limited.
I am also fire advisor to U.K. Hospitality a trade organisation for the U.K hospitality sector. I deliver strategic fire safety advise to several national hotel, retail, leisure, gaming and care provider organisations across the U.K. I have established strategic safety, security and business continuity contracts with large organisations involved in the leisure, hotel, healthcare, industrial, private housing and education sectors.

I provide fire strategy documents (Regulation 38 Documents) for new and refurbishment of all types of existing and new premises and provide specialist fire design consultation services to designers and architects. I am a tutor for fire design and enforcement courses across the fire safety portfolio of both the Fire Service College (Moreton in Marsh) and the Fire Protection Association (FPA). These engagements involve training serving fire officers to be auditors and private sector engineers to be fire safety designers/risk assessors. I provide strategic events management for sporting events and concerts. I was head of fire safety enforcement and community safety for Buckinghamshire Fire and Rescue Service and was responsible for the safety from fire of over 1.5 million head of population and for whom I designed and managed the corporate governance protocols and standard operating procedures for fire safety enforcement within all premises. I have a Master's degree and also a fire engineering degree.

I held the role of Senior Safety Officer for 18 years in the fire service and I am highly experienced at risk assessing, designing and validating fire safety engineering provisions and escape strategies within all types of premises. I was responsible for compiling investigations, bringing legal action and managing cases in Magistrates and Crown Court. I made the ultimate decision in relation to legal enforcement of fire regulations and have brought over 25 successful prosecutions under the Regulatory Reform (Fire Safety) Order 2005. I am a qualified expert witness and have compiled expert reports for both safety and fire investigation subject matter.

As a member of a fire service Senior Management Team I was responsible for compiling and delivering detailed reports and papers to the elected members of the fire authority relating to all aspects of regulatory and community fire safety matters.

As a Gold Commander for fire and major incidents, I took strategic command of the service, making dynamic, risk based decisions about resources, operational matters and corporate issues relating to employees and internal and external stakeholders.

EDUCATIONAL QUALIFICATIONS and PROFESSIONAL DEVELOPMENT:

- Master's Degree in Fire Safety, Security and Business Continuity.
- Fire Engineering Degree- Bachelor of Engineering.
- Post Graduate Certificate in Advanced Enforcement/Investigative Practice.
- Higher National Diploma in Fire Engineering.
- Advanced Investigative Practice Professional award. B.T.E.C. Edexcel Level 7 in Investigation/Interviewing and Advocacy.
- Legal Experience Training: Advanced Professional Award in Expert Witness Evidence. Edexcel level 7 B.T.E.C. (Masters).
- Gold Commander qualification (Highest command qualification Fire Service College Moreton in Marsh).
- NEBOSH Health and Safety General Certificate.
- NEBOSH Fire Safety General Certificate.
- Fire Safety Inspector Qualification from the Fire Service College at Moreton in Marsh.
- Fire Investigation Qualification from the Fire Service College at Moreton in Marsh.
- Graduate Member of the Institution of Fire Engineers (IFE).
- I.F.E certified Fire Safety Auditor.
- B.T.E.C. Edexcel Level 7 in Data Protection, Regulatory Investigatory Powers Act (R.I.P.A) Interceptions, Surveillance & Data Processing.

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