UWS Fire Safety Plan

Version – v1 – January 2025

Procedure Author – Head of Estates & Sustainability
Procedure Owner – Vice Principal (Finance and Infrastructure)
Parent Policy Statement –Health & Safety Policy Statement
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Contents

1. General Information:

1.1. Statement of Intent:

The University of the West of Scotland (UWS) recognises and accepts its responsibilities as an employer for ensuring, so far as is reasonably practicable, the safety of our staff, students and others who may be affected, in respect of harm caused by fire.

Fire safety is a primary objective of our activities, and it is recognised that effective fire safety management can contribute to organisational performance by eliminating or reducing unnecessary risks and liabilities. To achieve this, the University will always conduct its activities in a proactive way, to prevent injury and ill health to our staff, students and to those who engage with us in respect of harm caused by fire.
The University will create and promote a positive fire safety culture that secures the commitment and participation of all staff and students ensuring that we (UWS) provide and maintain a high standard of fire safety throughout all our Campuses.

We will meet our objectives it is the intention of the University to:

- Provide and maintain passive and active fire protection measures according to the purpose or use of the building, the numbers of occupants and the activities or processes undertaken therein:
- carry out a fire risk assessment to assess building and process fire risks, the existing preventive and protective measures and identify areas for improvement:
- establish a programme of works to improve or maintain the existing fire safety specifications:
- prepare and keep under review building specific fire safety plans:
- establish clear lines of responsibility and authority for the day-to-day fire safety management:
- identify competent persons to always be present the building is occupied with responsibility for initiating the fire evacuation procedure and provide information and assistance to the Fire and Rescue Service:
- carry out periodic checks of the fire safety measures and monitor the fire safety standards against any fire risk assessment.

1.2 Introduction:

Under the Health and Safety Policy, The University of the West of Scotland (UWS) recognises and accepts its responsibilities as an employer for ensuring, so far as is reasonably practicable, the safety of our staff while at work, and any other person who may be affected by what we do. In this context the duty extends to encompass fire safety.

This document identifies and describes the relevant fire safety standards currently employed at West of Scotland University. This will enable UWS as an organisation to devise, implement and co-ordinate the most appropriate arrangements to meet those standards.

It specifies detailed information regarding general evacuation of our buildings, specific evacuation of designated areas, arrangements for people with specific needs, fire precautions, fire risk assessments, guidance on routine checks, tests and inspections, training requirements and records that we will maintain.

By applying the Fire Plan`s basic principles, we can be confident that UWS will maintain the highest standard of fire precautions, fulfil our legal obligations, and ensure that staff, students, and other relevant parties understand their role in maintaining fire safety.

1.3 Responsibilities:

The Principal and Vice Chancellor, assisted by the University Secretary are responsible for fire safety at the University and for ensuring that this Fire Safety Plan is enforced and that we have suitable resources to enable us to fulfil our legal obligations by:

- reviewing and amending the Fire Plan as necessary:
- ensuring that suitable and sufficient fire risk assessments are conducted for all University premises:
- ensuring that all University staff complete the relevant fire safety related training courses:
- the provision of competent advice, in terms of the Fire (Scotland) Act 2005, Fire Safety (Scotland)
- Regulations 2006, The Regulatory Reform (Fire Safety) Order 2005 and other relevant legislation, and sector specific guidance. e.g., by the appointment of a Fire safety Officer.
- maintaining and auditing records of all related fire safety training:
- liaising with enforcing authorities on all fire safety related matters on behalf of the University
- providing advice and assistance in preparation of Personal Emergency Evacuation Plans (PEEPs):
- providing relevant support to the Head of Estates.

To attain compliance with current and future fire safety related legislation, the University has adopted a suitable [fire safety] management framework whereby Heads of Department / School / Directorate. are responsible for complying with the requirements of this Fire Safety Plan.

The Director of Estates and Campus Services shall assume the role of Joint Duty Holder and will be responsible for building fabric and ensuring that all University buildings have appropriate fire safety systems, equipment, and installations, and that the effectiveness of these are maintained via regular examination and maintenance in compliance with relevant standards.

Heads of Department shall assume the role of Joint Duty Holder and are responsible for the management of fire safety at a local level, ensuring that all building occupants under their control i.e., staff (including visiting lecturers), students and relevant others comply with the requirements of this Fire Safety Plan and cooperate with any staff nominated to hold specific fire safety duties.

Duty holders shall assist with all the compliance aspects of this Fire Safety Plan within their areas of control, including the appointment of additional staff and attendance at relevant training events, to assist with other fire safety related roles (e.g., fire marshals, evacuation chair operatives, evacuation lift operatives (Security Services).

All Employees, Students and Relevant Others must: -

- make themselves familiar with what they need to do when there is a fire alarm in any part of the campus, they may be in.
- cooperate with any arrangements put in place to ensure their safety when there is a fire alarm in progress.
- follow any instructions issued by designated staff.

Visitors:

- In the event of a fire evacuation:
- the person hosting a visitor is responsible for escorting them to the assembly point.
- all visitors should be accounted for at the assembly point.

Contractors:

Contractors must comply with our Fire Safety Procedures and the senior contractor should account for their staff at the assembly point.

Note: All responsibilities as detailed within Section 3 of the Fire Safety Procedure.

2. Legal Framework:

2.1 Fire (Scotland) Act 2005 and Fire Safety (Scotland) Regulations 2006:

Part three of the Fire (Scotland) Act 2005 requires the University to ensure, so far as is reasonably practicable, the safety of its employees and other relevant persons in respect of harm caused by fire in the workplace. The Fire Safety (Scotland) Regulations 2006 define specific arrangements we must have in place to ensure that we manage fire safety appropriately.

Regulatory Reform (Fire Safety) Order 2005 (RRO)
In England and Wales, the Regulatory Reform (Fire Safety) Order 2005 places similar duties on the responsible person for the premises. This includes taking general fire precautions, conducting fire risk assessments, and providing and maintaining necessary fire safety measures to ensure the safety of all relevant persons.
This institution is committed to complying with all applicable fire safety legislation and ensuring a safe environment for all staff, students, and visitors.

2.2 Health and Safety at Work etc. Act 1974:

In general, this Act imposes duties on us to provide a safe place of work and safe means of entering and leaving our buildings.
Note: Further details on the above legislation are contained within Section 2 of the Fire Safety Procedure.

2.3 Equality Act 2010:

Consider aspects relating to fire evacuation for persons with specific needs (see appendix 4 of the Fire Safety Procedure).

2.4 Construction (Design and Management) Regulations 2015:

These regulations are intended to ensure that relevant issues are properly considered during a project's development so that the risk of harm from fire and/or the effects of fire for those who must build, use, and maintain structures during the building process are significantly reduced or eliminated.

2.5 Building (Scotland) Regulations 2004 and Scottish Building Standards Technical Handbook:

The purpose of the building standards system, which is administered and enforced by Scottish local authorities, is to set out the essential standards to be met when new buildings or relevant conversion/refurbishment projects take place

3. Principal Strategic Aims:

From the top of the organisation downwards, our approach to the management of fire safety will continue to be proactive, fostered by individuals who clearly understand

their roles and responsibilities and accept ownership and full accountability for fire safety matters.
Confident leadership will confirm to staff and students and others who engage with us, that fire safety is a priority and is a vital component in achieving a positive health and safety culture.

3.1 Aims and Objectives:

The aim of this Fire Safety Plan is the provision and maintenance of a 'safe' environment for all staff, students, visitors, and members of the public throughout the organisation to reduce the risk to life, personal injury, property and business losses. The primary objective is the provision and maintenance of buildings, fire safety systems and procedures so that in the event of fire, the occupants can reach a place of safety.

3.2 Specific objectives are:

- Compliance with statutory requirements and adherence to current sector specific fire safety guidance as a minimum.
- Continual improvement of fire safety standards in all University of West of Scotland premises.
- Undertake and maintain training packages including information and arrangements for staff, students, contractors, and other relevant persons where appropriate.
- Arrange for the provision of Personal Emergency Evacuation Plans for every disabled individual employee or student
- Provide relevant information and assistance to be able to manage their escape to a place of safety
- To ensure that the correct level of assistance is available at all relevant times.
- Continually Improve the standard and engagement of fire safety management in all departments.
- Maintain all fire safety precautions (structures, equipment, installations, and systems).
- Test, maintain, and where necessary, upgrade the means of detecting fire and raising the alarm.
- Conduct regular fire evacuation drills to maintain emergency evacuation arrangements.
- Review, maintain and where necessary, upgrade firefighting equipment and installations.
- Provide suitable and sufficient information, instruction, training, and supervision so that staff, students, and relevant others know how to avoid fire hazards and contribute positively to overall fire safety standards.
- Reduce the number of unwanted fire alerts and the number of attendances by the SF&RS.

By applying the Fire Safety Plan`s basic principles, we can be confident that the University will continue to maintain the highest standards of fire safety precautions, fulfil our legal obligations, and ensure that all staff, students, and relevant others understand their roles in promoting and maintaining fire safety.

4. Fire Safety Systems and Arrangements:

4.1 Fire Risk Assessment:

Fire Safety Risk Assessments for the University of the West of Scotland are undertaken by the Fire Safety Officer.

The Fire Safety Risk Assessment pays particular attention to those at special risk, i.e. disabled and those with special needs, and must include consideration of any dangerous substance liable to be on the premises.

(Any dangerous substance must be subject to a risk assessment under both the Control of Substances Hazardous to Health Regulations and the Dangerous Substances & Explosive Atmospheres Regulations. These risk assessments will be carried out by the user of the substance, or their supervisor or manager, and made available to the Fire Safety Officer or authorised person upon request).

The Fire Safety Risk Assessment will help identify risks that can be removed or reduced and assist in deciding the nature and extent of general fire precautions required for the premises. Fire Safety **Risk** Assessments assist in determining the University Fire Safety Strategy.

Fire Safety Risk Assessments should be reviewed on a regular basis at the following intervals:

a) Sleeping Accommodation - Annually
b) Student Union -Two Yearly
c) Teaching Buildings - High Risk - Annually
e) Teaching Buildings - Moderate Risk -Two Yearly
f) Teaching Buildings - Low Risk - Three Yearly
g) Administration Offices - Three Yearly

This may be subject to review dependant on the following circumstances:

- There is reason to suspect that it is no longer valid.
- There has been a significant change in the matters to which it relates.
- After any fire incident.

4.2 Maintenance of Fire Safety Measures:

All fire safety measures will be subject to a regime of checks, servicing, testing and maintenance as appropriate.

4.3 Fire Alarm Systems:

All buildings will be provided with suitable automatic detection and/or manual means for raising the fire alarm. All systems will as a minimum, conform to guidance detailed in BS 5839 Part 1 and in accordance with the requirements detailed in Scottish Building Standards Technical Handbook and the Building Regulations 2010, Fire Safety Approved Document B, Section 1, Fire detection and alarm systems.

4.4 Fire Safety Training, Information and Advice:

Suitable training and information are provided which ensure all staff have a basic understanding of the principles of fire safety awareness. This training is provided, face to face, online via Microsoft Teams, or via the UWS Training Portal Awaken training system.
Specific training courses are provided for all staff with additional fire safety roles and responsibilities.
The University Fire Safety Officer is available to provide guidance and advise as and when required.

4.5 Means of Escape:

All buildings will be provided with suitable means of escape, utilising a mix of fire exits, corridors and stair enclosures.
All means of escape will be afforded suitable protection where necessary, in accordance with the requirements detailed in the Scottish Building Standards Technical Handbook.
Fire doors must be kept always closed (unless they are held open by a magnetic system linked to the fire alarm, and close automatically).
Fire doors maintain compartmentation of the building and prevent the spread of fire and/or toxic smoke. All doors are subject to a planned maintenance inspection managed by Estates.
Corridors, stairways, landings and escape routes must be kept clear at all times of any combustible material which would allow a fire to develop, cause obstruction or impede an emergency evacuation.
Buildings containing Fire-fighting lifts, permission will be sought from the relevant Fire Authority to enable their use, to assist in the safe evacuation of disabled persons where required. This will be applicable to any relevant campus buildings, including London Campus.

4.6 Fire Safety Precautions

All firefighting equipment must be kept free from obstruction and be readily available for use in an emergency. Portable firefighting equipment must not be removed or repositioned without authority from the Fire Safety Officer (or other member of Health and Safety in their absence).

Where possible, evacuation lifts will be installed to assist with the evacuation of persons who may need assistance to evacuate.

Building occupancies will be kept to acceptable number (as detailed within Scottish Building Standards Technical Handbook)

Door fastenings will be provided to conform with the requirements detailed in Scottish Building Standards Technical Handbook, with additional consideration given to access for firefighting purposes.

Appropriate escape route directional signage and exit signs will be displayed in accordance with the Health and Safety (Safety Signs and Signals) Signals Regulations 1996.

4.7 Fire and Smoke Spread:

All buildings are constructed and maintained to ensure that suitable fire protection measures are provided in accordance with the requirements detailed in Scottish Building Standards Technical Handbook (2.1. compartmentation and 2.2. fire separation) and The Building Regulations Fire Safety Approved Document B. These elements of structure will minimise the spread of fire and smoke within the building and provide specific protection of the escape routes.

5. Means for Fighting Fire:

All buildings will be provided with appropriate portable firefighting equipment as a minimum, with fire sprinkler installations and fire suppression systems installed where necessary.

5.1 General:

Fire hydrants will be available for firefighting crews, beneath the nearby pathways.
Where required, buildings will be provided with [dry] rising mains and firefighting lobbies.
Smoke ventilation facilities will be installed in accordance with the requirements detailed within Scottish Building Standards Technical Handbook.
Appropriate signage will be displayed to indicate the location of specific hazards, building level numbers, and the location of specific rising mains outlets where appropriate.

Suitably sized schematic fire alarm system plans that are easily read by any attending fire crews will be provided will be provided adjacent to the Fire alarm pane in accordance with the requirements of BS5839 Part 1, Current Edition.
Suitable access for fire appliances will be provided and maintained in accordance with the requirements detailed in Scottish Building Standards Technical Handbook

6. Fire Safety Systems:

6.1 Fire Alarm/ Sprinklers/suppression Systems:

Where buildings are fitted with sprinkler and/or suppression systems these systems will be tested and maintained in accordance with the approved standard as required.

6.2 Fire Alarm Activation:

Within all University buildings there will be an automatic fire detection and/or manual fire alarm system installed, tested, and maintained in accordance with the appropriate standard. The complexity of the system will be governed using the building.
Where magnetic door locks are provided this should be done in accordance with the current Scottish Building Technical Handbook requirements and the Building Regulations Fire Safety Approved Document B.

6.3 Lifts:

All lifts, where practicable, will be integrated with the fire alarm system, this ensures that lift carriages in transit during a fire alarm activation are designed to fail safe.
All lift communications and emergency lighting will continue to function even without the normal power supply. Their period of operation should be long enough to allow normal operation of the rescue procedure.
Installation of Firefighting lifts are as above in 4.5. Means of Escape.

7. Fire Action Plans:

7.1 General:

All buildings will be provided with Emergency Fire Action Plans. To avoid confusion for those who may use more than one building, the principles of evacuation will be generic, with building specific details for the location of fire assembly points.
(Appendix 1)
As fires can occur with little or no warning it is both vital and a legal requirement that our fire action plans have the capacity to: -

- prevent loss of life or injury.
- minimise damage to property.

- restore as soon as possible the operational condition of the building or provide an alternative service.

7.2 To be effective our plans will: -

- be in written and electronic format.
- be as simple as possible but provide the basis for actions to achieve the plans objectives.
- detail responsibilities of key staff.
- consider the availability of employees on duty at all times of the day and night.
- make the most effective use of existing fire precautions.
- be brought to the attention of and be understood by staff, students, and relevant others.
- be regularly reviewed and updated as necessary.

7.3 Action Plan Considerations:

A pre-requisite of an effective fire emergency procedure is the ability to account for or identify any missing people who were in a building at the time the alarm was raised.

In addition to staff and students, there may be visitors in the building. Contractors, visiting lecturers, and others may visit the building irregularly and our emergency procedures and responsibilities must take this into account.
The University has a duty of care for such people and our emergency procedures take account of that duty.

8. Training and Information:

8.1 Fire Wardens:

Building Fire Wardens will be specifically trained to manage the emergency evacuation of their area of responsibility. They will all be familiar with all areas and levels of the relevant buildings within the Campuses and will be provided with customised training in the following subject areas: -

- fire safety theory.
- fire safety practical – including use of fire extinguishers.
- use of evac-chairs (where appropriate).
- use of radio system (where appropriate).
- role of the Fire Warden and responsibilities.
- detailed understanding of fire action plans.
- ensuring that traffic on site does not endanger pedestrians or hinder the progress of emergency services attending the incident.

- Refresher training will be provided for Fire Wardens at intervals not exceeding three years or as required. This training is provided face to face, online, or via the UWS Training Portal Awaken training system.

8.2 Fire Evacuation Drills:

The Fire Safety Officer will conduct not less than two full evacuation drills per academic year and persons nominated as Fire Wardens will participate in these drills should they be on-site.

8.3 Staff Fire Awareness Training:

All University staff will complete the University's mandatory e-learning fire safety awareness training course via Awaken system. This includes completion of an assessment to confirm understanding of learning outcomes. The Awaken system will automatically create a training record and send reminders to the individual when refresher training is due.

All new staff will complete Awaken fire safety awareness training during their induction process.

Refresher training will be conducted at intervals not exceeding three years or as required.

Training records will continue to be maintained by Heads of Schools and Departments and audited by Health and Safety Department.

8.4 Students:

All students will be provided details of the fire safety and evacuation arrangements at the time of matriculation. They will also receive basic instructions in the specific School they attend and residential areas they occupy.

9. Contractors: Control Measures.

9.1 Contractors

Contractors working on behalf of, or on property owned or occupied by, the University must comply with the University's "Contractors Rules" (available on request from Estates) and obey all instructions given to them regarding fire safety. They must also ensure that all personnel for whom they have responsibility is adequately trained and instructed in fire safety procedures and arrangements.

9.2. Permit to Work:

The Permit to Work procedure applies to all contractors carrying out work undertake non UWS premises including (but not limited to), construction, repair and maintenance of buildings, installation, maintenance, and servicing of all types of plant equipment and University assets.

9.3. Permit to Work Process:

A Notification to Work must be completed as the first step of commissioning works, this will Identify the need for a Permit to Work system. A Permit to Work system shall be considered whenever the proposed work may adversely affect the safety of personnel, plant, or the environment. A Permit to Work must be issued prior to any works being undertaken. Works cannot proceed without the appropriate permit being in place.
(Reference shall be made to current UWS Permit to Work Procedure).

9.4. Control Measures:

Where it applies to building structure, Estates is responsible for the implementation of control measures arising out of Fire Safety Risk Assessments, developing an action plan in line with the recommendations and requirements identified.

9.5. Passive Fire Protection:

All building works undertaken on university premises must ensure the integrity of passive fire protection where there are gaps or penetrations in building fire compartment walls and floors, including were Mechanical& Electrical (M&E) services are installed.

9.6. New Build/ Alteration Planning:

When new buildings, or alterations to existing buildings are being planned the Project Manager shall ensure that the requirements of relevant fire safety legislation and recognised standards are fully considered and that the proposed buildings and facilities meet these requirements. Details of the proposals shall also be sent to Health & Safety who will advise on compliance matters.

9.7. Fire Stopping:

In all circumstances Project Managers must provide provisional arrangements for works (no matter how minor) including mechanical & electrical, building & construction, and data cabling to ensure adequate fire stopping is provided or maintained as part of, and on completion of the works.

10. Specific Needs:

10.1 Personal Emergency Evacuation Plan (PEEP):

Disabled people, like everyone else, should always have safe means of escape available in the event of fire. Under the Equality Act 2010, the University of the West of Scotland (UWS) has a duty to make reasonable adjustments to ensure safe emergency egress provision for disabled people.

The aim of a Personal Emergency Evacuation Plan (PEEP) is to provide people who may have a physical, visual, hearing, or cognitive impairment with the necessary information to manage their escape safely, and to further provide Schools and Departments with relevant information thereby ensuring that the correct level of assistance is available.
Each PEEP will take account of the specific needs of the individual and detail any additional equipment or resources needed.
The PEEP process will be initiated by the University Disability Advisor for students and through People and Wellbeing (P&W) relevant to staff.

The term Disabled people include such persons who may be non-ambulant or temporarily disabled through injury.

The people who may require a PEEP or a temporary PEEP include those with:

- Cognitive impairments.
- Sight problems.
- Limited mobility.
- Impaired hearing.
- A broken leg.
- Asthma.
- Late-stage pregnancies.

(Please note, this list is not exhaustive)

The focus on access into premises to enable disabled people to fully use a building needs to be matched with arrangements for their safe egress in the event of fire.
The safe egress and evacuation of disabled people requires careful consideration and attention.

UWS aims to ensure that suitable safe systems are devised and put in place that will enable all building users (Staff, Students, Contractors and Visitors) to evacuate safely in the event of fire or other emergency.

Staff members and Students with a disability that makes it difficult for them to evacuate without assistance will be referred to the University Fire Safety Officer.
On receiving a referral, the University Fire Safety Officer will decide to meet with the student or staff member as soon as reasonably practicable and agree a Personal Emergency Evacuation Plan that is specific to them and the campus that they attend.

10.2 Visitors with Specific Needs:

Visitors with specific needs should notify their host so that arrangements can be formulated if necessary.

10.3 Evacuation Chairs:

Evac-Chairs are provided in all buildings where access to upper floors is provided by means of passenger lifts.
The use of the Evacuation Chair may involve manual handling where the disabled person is in a wheelchair and cannot transfer to the Evac chair without assistance.
Transfer from a wheelchair to an Evac chair shall only be carried out by trained persons and where it has been agreed within the individuals PEEP.

10.4 Evacuation Chair Locations:

Evac Chairs are located within the dedicated refuge areas. These are areas that are afforded protection from a potential fire by suitable fire-resisting construction. They are located within protected stair enclosures and provided with a safe route to a storey exit, thus constituting a temporarily safe space for disabled persons to remain during a fire alarm activation, until they are required to evacuate the premise.
Where it is anticipated to be several wheelchair users in a building at any one-time, additional Evac-Chairs have been provided in the relevant building.

11. Maintenance of Fire Safety Systems:

11.1 Fire Safety Systems:

Fire alarm/sprinklers/suppression systems will be regularly tested, inspected, and maintained in accordance with the approved standard by suitably qualified persons.
Any necessary remedial action to deal with any faults indicated will be implemented as appropriate.
The maintenance and servicing will be the responsibility of the Director of Estates and be conducted in accordance with current guidance to a planned preventative maintenance schedule.
All maintenance tests and faults will be recorded, and records held centrally.

11.2 Fire Fighting Equipment:

The University provides fire-fighting equipment throughout its buildings, generally in the form of portable fire extinguishers.
All fire-fighting equipment will be regularly tested, inspected, and maintained in accordance with the approved standard by suitably qualified persons.
Estates will control and monitor such testing, inspection, and maintenance; and retain appropriate records.
Gradual phase out of foam type fire extinguishers wherever possible; changing them for more environmentally friendly alternatives.
In some circumstances more specialist extinguisher types may be needed such as Type F extinguishers suitable for oil fires in commercial kitchens.
Fire Wardens will conduct monthly visual checks on all manual fire-fighting appliances within their allocated area of responsibility. This will consist of a visual check only, to ensure they are in position, have not been discharged or damaged, or have lost pressure (if fitted with a pressure indicator).
All defects or missing units must be notified to the Fire Safety Officer / Estates.
Any necessary remedial action shall be implemented as appropriate.

11.3 Fire Doors:

Fire Wardens will conduct weekly visual checks on all fire doors within their allocated area of responsibility to ensure that fire doors are not wedged open. After the weekly fire alarm test checks shall be conducted to ensure that fire doors fitted with automatic door release units' function correctly. All defects must be notified to Estates.

Estates will conduct an inspection programme of regular checks on fire doors for signs of distortion or damage, to verify that door closers function correctly and to ensure that smoke seals are effective.
This inspection programme will form part of an ongoing rolling programme conducted throughout the entire premises to ensure fire doors undergo a physical assessment at intervals not exceeding 6 months in accordance with BS 9999-2017.

11.4 Emergency Lighting:

The University provides escape lighting and emergency lighting where this is legally required or where a need is identified through risk assessment. Regular maintenance and functional checks on these systems are arranged by Estates.
Most systems are illuminated only on failure of mains electrical power and need to be tested by Estates or by an approved contractor to demonstrate correct operation.
All emergency lighting units will be maintained, tested, and inspected in accordance with the approved standard by suitably qualified persons. Estates will control these tests and maintain appropriate records.

11.5. Fire Signage and Information:

The University provides fire signs within all its buildings. This includes fire directional signs, and signs indicating fire doors, manual call points and portable fire-fighting equipment.
The nature of signage across the University is varied. However, we aim to ensure that all meet the basic requirements of the Health and Safety (Signs and Signals) Regulations 1996 in terms of colour size and shape, and relevant UK or European standards in relation to content.

Estates are responsible for the provision of fire signage within university owned buildings as an integral part of the building infrastructure. Fire signage is examined as part of the fire risk assessment process.

12. Organisation and Control:

The comprehensive programme of fire risk assessments will clearly indicate the duty holders, or indeed joint duty holders, who assume overall responsibility for fire safety within the organisation.

Appendix 1

FIRE ACTION

If you discover a fire

Raise the alarm:

- Verbally inform those around you.
- Operate the nearest fire alarm call point to alert all occupants within the building.
- Evacuate the building via the nearest escape route. – Walk quickly – Do not run.
- Do NOT delay your escape or return for valuables.
- Proceed to your nearest Fire assembly point.
- Do NOT re-enter the building until told to do so by authorised personnel.

If you hear the fire alarm

- Stop what you are doing.
- Evacuate the building via the nearest escape route. – Walk quickly – Do not run.
- Do NOT delay your escape or return for valuables.
- Proceed to your nearest Fire assembly point.
- Do NOT re-enter the building until told to do so by authorised personnel.

EVACUATION

The Scottish Fire and Rescue Service (SFRS) now only attend sleeping risk fire alarm actuations at UWS.

Appendix 2

Fire instruction:

Duties of Teaching Staff

In all teaching rooms, laboratories, and workshops, it is the lecturer who is responsible for the safety of the students. This instruction also applies to visiting teaching staff/ lecturers.

The following details the fire safety responsibilities of staff when teaching or supervising students.

Teaching staff should:

Be familiar with the evacuation plan for the classroom where they are teaching.

Act as fire warden for the classroom where they are teaching if the fire alarm sounds.

Upon hearing the fire alarm, all activities shall cease. Direct students to the nearest escape route and to assembly point as indicated on the fire action notice.

Be mindful of Students wearing “noise cancelling headphones”, they may not hear the alarm and will require to be physically contacted to make them aware of the alarm and the need to evacuate.

Rendezvous at the nearest fire assembly point and look for any missing persons from your class. Notify Security if there are.

Appendix 3

UNIVERSITY OF THE WEST of SCOTLAND
UWS

Security Operating Procedure

Fire Safety and Response

Version 1 September 2024

Plan Author – Head of Estates & Sustainability
Procedure Owner – Vice Principal (Finance & Infrastructure)
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INTRODUCTION

Our Security Team are the line of first response for the University when reacting to a fire alarm or signs of fire. It is important that we follow strict and pre-planned instruction to maximise the safety of our teams and campus users.
A fire incident on campus is known as a Code Red.
There are different procedures for responding to a fire alarm panel alert depending on where the potential fire is located and whether the alert is received during core hours or out with core hours. It is important to be fully aware of the procedure for each location and time of day.
This document details the investigation procedure that must be followed alongside the appendices attached.
Our Campuses at London, Lanarkshire and Dumfries are all managed by external companies, so this SOP does not apply there.

INVESTIGATION PROCEDURE

For **main campus**, upon an activation of the fire alert panel relating to an area, an investigation must take place prior to the Scottish Fire and Rescue Service (SFRS) being contacted.
For **residences** an activation will receive a guaranteed attendance by the SFRS because residences are classed as a 'sleeping risk'. There is no need for an investigation at residency buildings.
Storie St and Ayr Halls have an auto dialler that connects to SFRS. At Storie Street, a backup call is always made to SFRS to confirm their attendance is required.
However, Lady Lane and George St residencies **DO NOT** have an Auto dialler and so 999 must be dialled to alert SFRS to attend.

LIST OF FIRE PANELS
PAISLEY CAMPUS

Building	Panel Location
Storie Street	Reception area on the ground floor at reception & Ground floor block 2 Storie Street entrance.
Lady Lane and George Street	Ground floor entrance in close. (All flats are the same)
Student Union	Reception area on the ground floor at the main entrance.
Witherspoon	Storie Street entrance into the Witherspoon building.
Elles East	Ground floor entrance next to the Café.
Elles South	Ground floor entrance next to the lifts.
Elles West	Ground floor entrance next to the international student's recruitment office.
Robertson Trust Library & the Hub	Ground floor entrance opposite the revolving door.
Gardener	Ground floor entrance on the right-hand wall.

Oswald	Ground floor entrance on the left-hand wall.
Tom Howie	Ground floor entrance on the right-hand wall.
Bow, MacLachlan and McLean	Ground floor entrance opposite the Coats Building.
Henry West	Ground floor entrance from the Lady Lane Car park.
Henry South	Ground floor entrance, opposite the Bow Building on the left-hand wall.
Henry East	Ground floor entrance opposite the McLachlan Building.
Brough and Barbour	Ground floor entrance, in the cupboard next to the defibrillator.
Richardson	Left-hand wall near the thin film Lab. Enter via the rear of A100 by the outside Gym.
Denholm	Ground floor entrance on the left-hand wall.
Coats	No fire panel as it is all one zone.
Hugh Smiley	Ground floor entrance, left of the entrance.

AYR CAMPUS

Building	Panel Location
Main Campus	Ground floor entrance in the Security Office.
Residences	Ground floor main office.
Craigie House	Ground floor entrance.

INITIAL RESPONSE

Security Patrol Attendants (SPA) will be contacted by Security Control via radio and dispatched to the alerted area. During core hours two SPAs should complete the investigation, and one SPA must remain in Control room. Out with core hours one SPA must stay in Control room, and one must investigate using route cards to ensure a pre-planned safe route is followed. The relevant residency teams must be immediately notified of any alarm panel activation at a residency building to make them aware.

COMMUNICATION

Constant communication between investigating SPAs and Control must be maintained via radio. If at any time communication cannot be established, Control must request SFRS attendance and no further internal investigation should be carried out. Any further investigation must be external only.

SFRS MUST BE IMMEDIATELY CONTACTED IF:

- More than 1 break glass call point is activated.
- Two adjacent detector sensors are activated. This will be identified on the main panel or the panel in the building.
- CCTV clearly identifies a fire.
- Any persons report sight, sound or smell of fire or smoke.

SPAs must mobilise to attend related building and assist SFRS, and complete Fire Warden duties as required.

EN-ROUTE TO ALERTED BUILDING

Whilst en-route to alerted building, if any external signs of fire are presented such as smoke or flames, the SPA must cease investigation an inform Control to immediately contact SFRS.

If there is no sign of fire evident and initial external assessment of the building is satisfactory, the SPA must proceed to the building fire panel and ascertain required information.

The SPA must determine the location of the detector or sensor activated and then inform the Control the location.

If the fire panel indicates that more than one manual fire call point has been activated, immediately request that Control contact SFRS for attendance.

If there are no immediate signs of fire, the SPA must inform Control that they are proceeding to the alerted area.

INTERNAL INVESTIGATION

SPA should make their way to the alerted area utilising protected zones, protected corridors and protected stair enclosures to carry out investigations. Lifts must **NOT** be used. SPA must **NOT** access any void areas to check detector heads and ceiling tiles must not be removed.

If the investigation is being complete out with core hours and the SPA is investigating alone, a route card MUST be taken from the fire document box at the entrance to the building. This route card must be followed so that the route is pre-planned. Ad-hoc investigation must not take place. If the alerted building is highlighted as high risk, **NO** internal investigation should be carried out and only external monitoring should take place.

NO SIGN OF FIRE

If there are no signs of fire discovered, flame, smoke, heat or noise, the fire panel can be silenced and reset.

SIGNS OF FIRE DETECTED

If there are any signs or suspicion of a fire such as flames, smell or sight of smoke, heat or noise then SPAs must immediately withdraw from the building and go to a safe place outside. Control must be contacted urgently and told to request attendance from SFRS.

SPAs must liaise with SFRS and relay any relevant information.

FALSE ALARM

For Residences: Should it become evidence that a false alarm has been raised, Control must contact SFRS to inform that a response is no longer required. SFRA will instruct a single appliance to attend at normal road speed. SPA **MUST NOT** reset the fire panel until SFRS has instructed them it is safe to do so.

For all other Campus buildings: Should it become evident that a false alarm has been raised, Control must be contacted, and a fire alarm reset should be done. If the evacuation has not fully completed, wait until it has and then reset the alarm panel and allow the occupants to return.

RESETTING THE FIRE PANEL

Once the building is confirmed as safe, the panel can be silenced and reset and occupants allowed back into the building. If a panel fault is suspected, this must be reported to the Estates team at fmhelpdesk@uws.ac.uk.
If the panel will not reset, it can be silenced to allow occupants back into the building. Any further alerts will activate the sounders again. The UWS Fire Safety Officer must be informed of any issues.

HAZARDOUS BUILDINGS OR ROOMS

Any building or room considered high risk or hazardous must **NOT** be entered for internal investigation and should only be investigated externally. Such rooms are clearly marked with 'warning' signs at the entry door. For example.

PROTOCOLS TO BE NOTED

- Investigation must only be carried out by individuals deemed competent and that have completed the 'UWS Fire Investigation Training'.
- SPA must ensure safe egress is available when completing investigation internally.
- If fire is suspected at any time, SPA must immediately with draw and Control must contact SFRS.
- Handheld radios must be always used.
- A minimum of two SPA must conduct any fire investigation – one to stay in Control room and one to inspect the alerted building.
- In the unlikely event that only one SPA is available, and Control room cannot be manned, the building investigation must be EXTERNAL ONLY.
- All fire alarm activations must be recorded both in the incident log and on the Awaken system.
- Any incident that impacts the safe operational running of the University must be escalated to the major incidents team.
- During core working hours of 08:45 – 16:45 the residencies operational team will lead the evacuation of the residency buildings. Out with core hours the Security Team will fulfil these duties.
- Any fire alarm faults during office hours are to be raised through the FM helpdesk. Any fault out of hours, FES must be contacted.

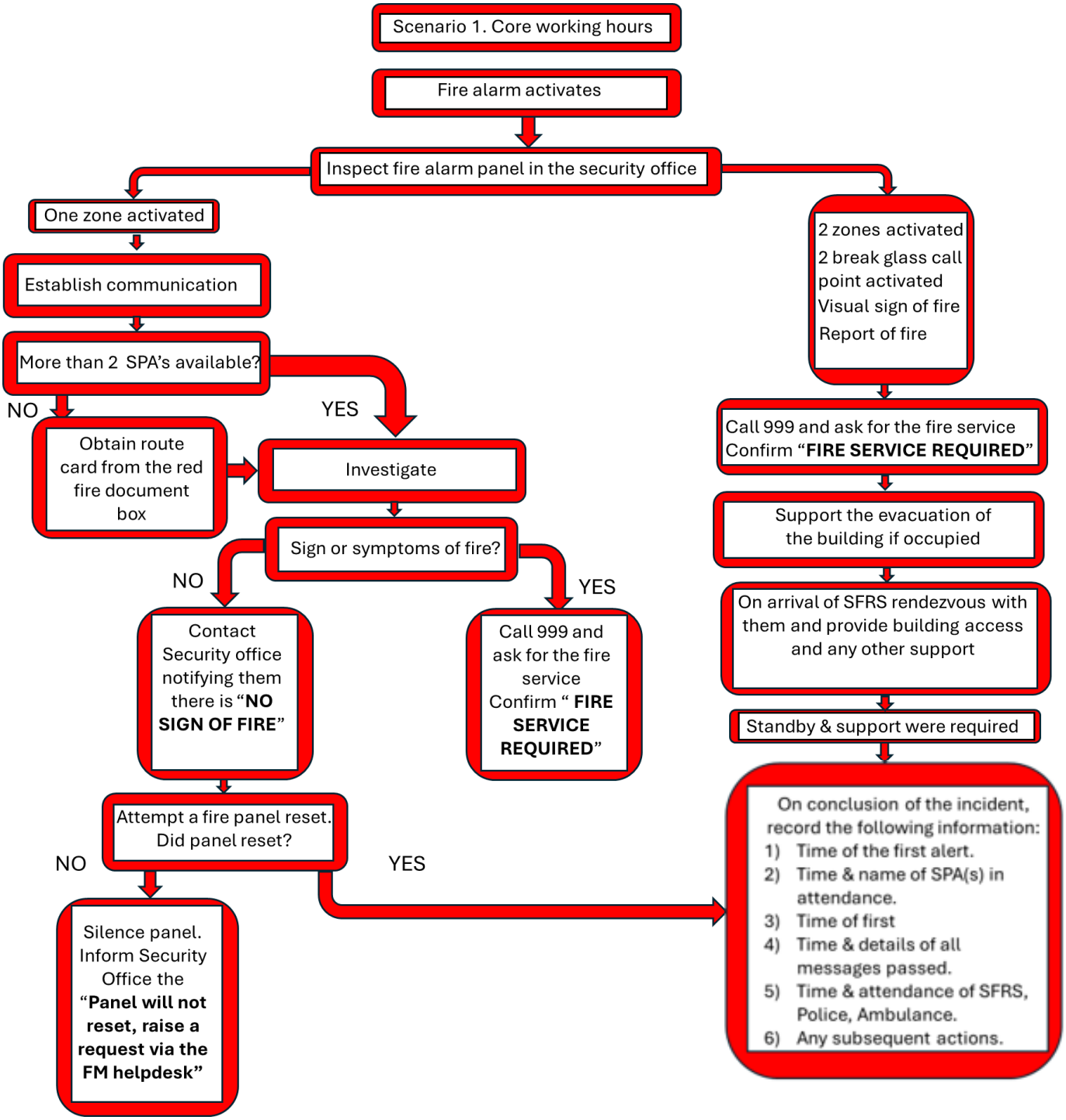
TRAINING AVAILABLE FROM FIRE SAFETY OFFICER

- Control procedures
- Investigation procedures
- Radio contact protocol
- Signs of fire
- Protected zones within buildings
- Route card interpretation and use
- Maintaining safe access and egress
- Communicating with Scottish Fire and Rescue Service
- Reading the fire panel
- Silencing and resetting fire panel

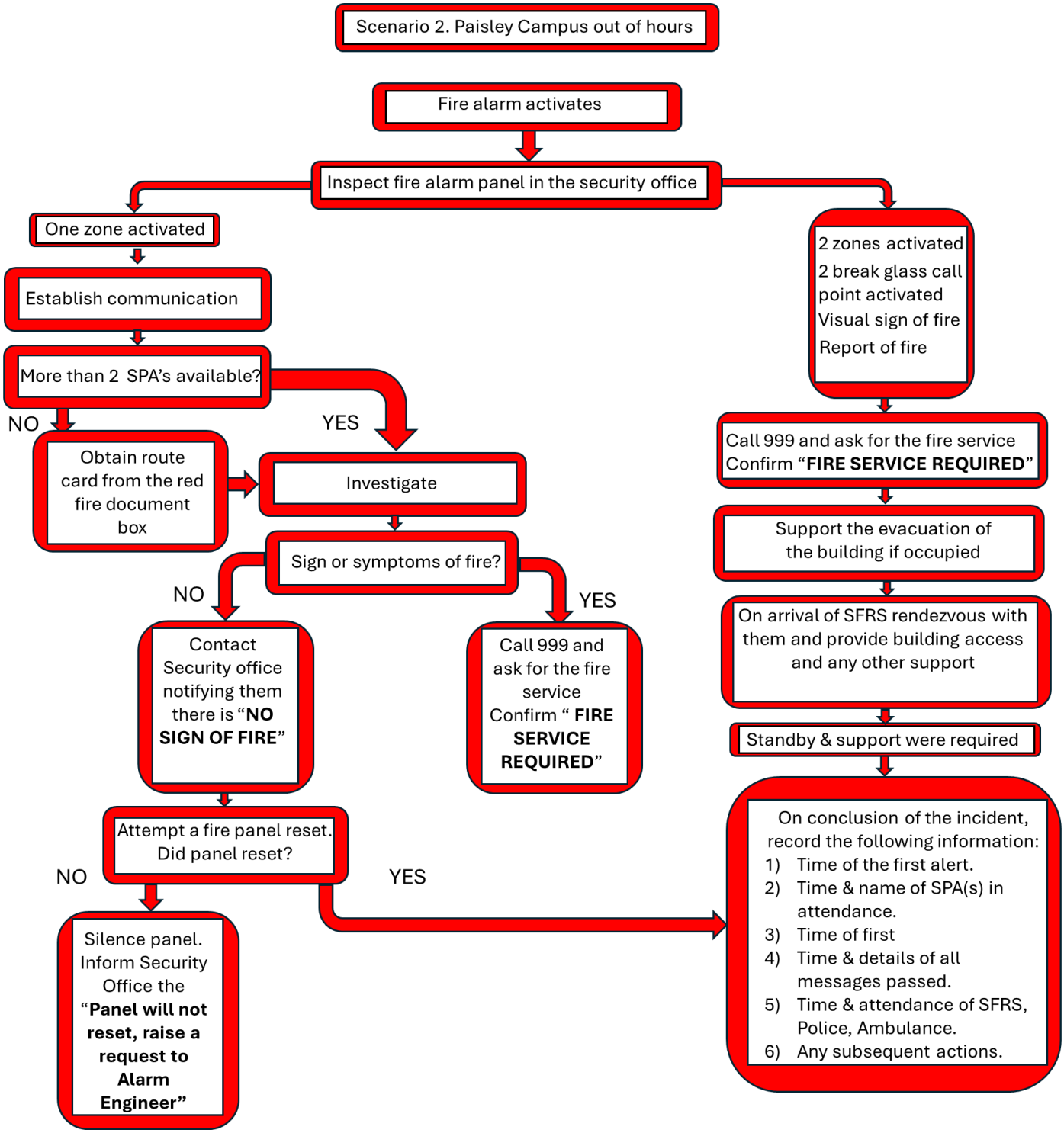
APPENDIX CONTENTS

FLOW CHARTS FOR RESPONSE PROCEDURE

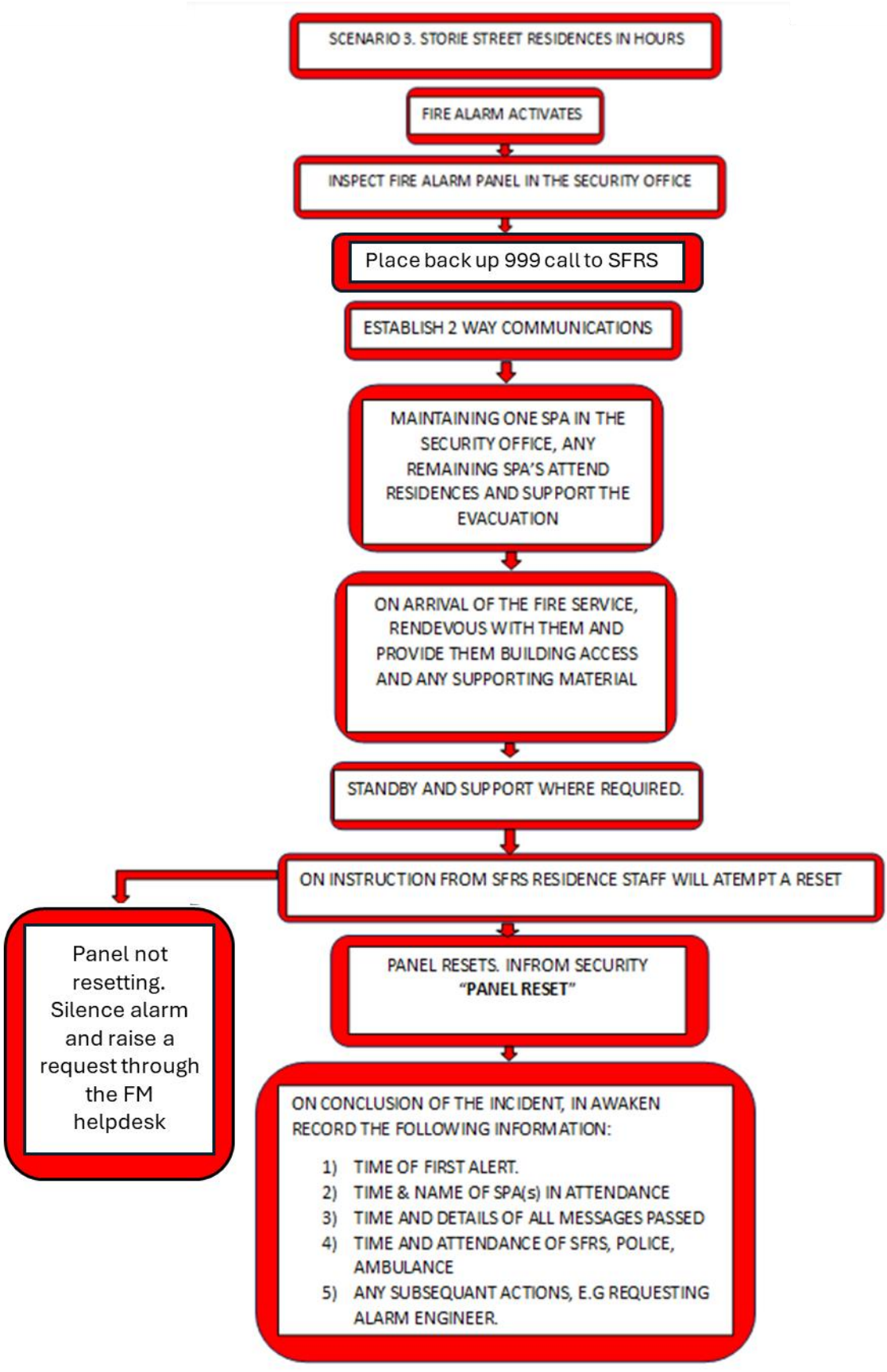
1. Paisley Campus – Core Working Hours



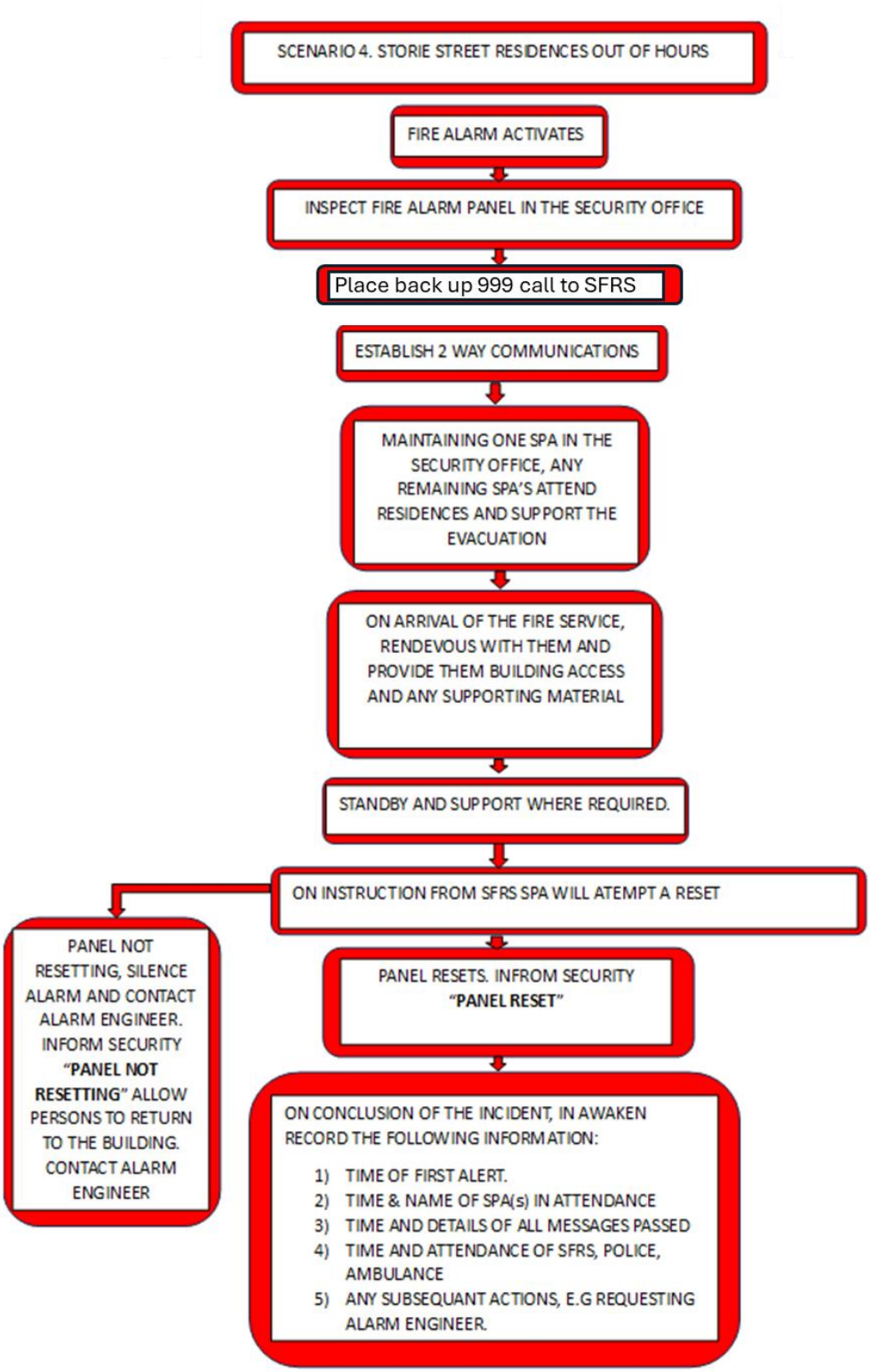
2. Paisley Campus – Out of Hours



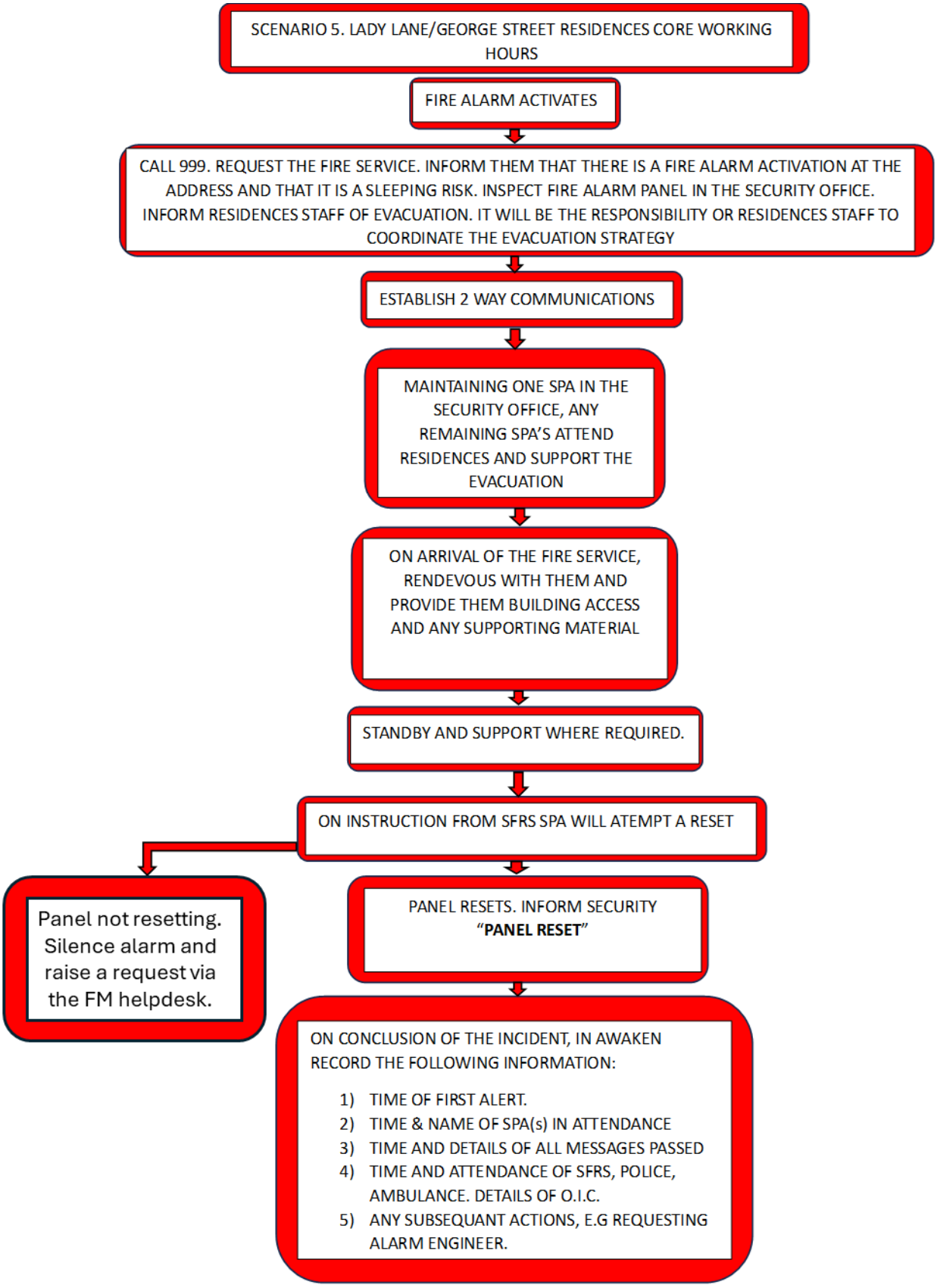
3. **Storie St Residency – Core Working Hours**



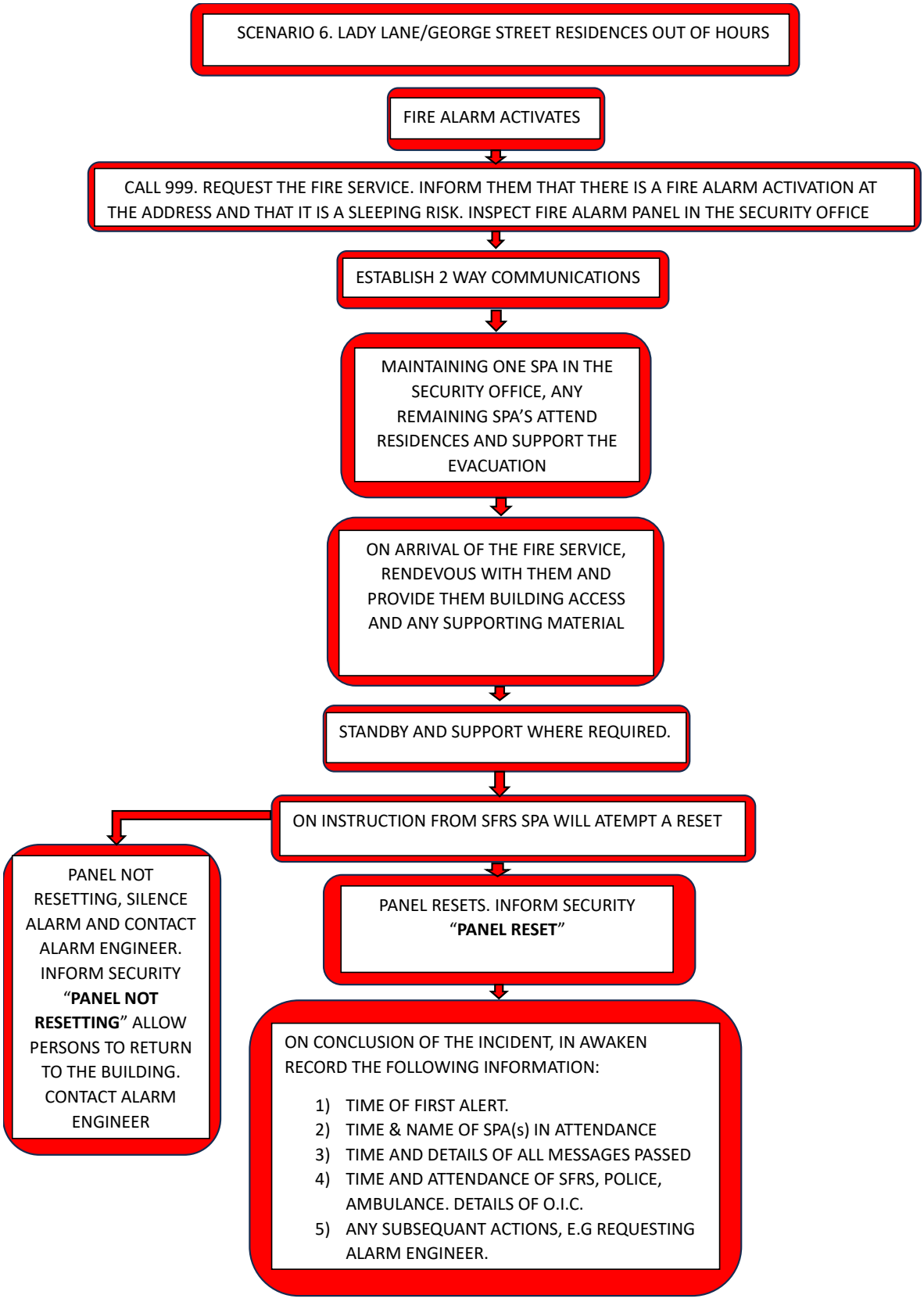
4. **Storie St Residency – Out of Hours**



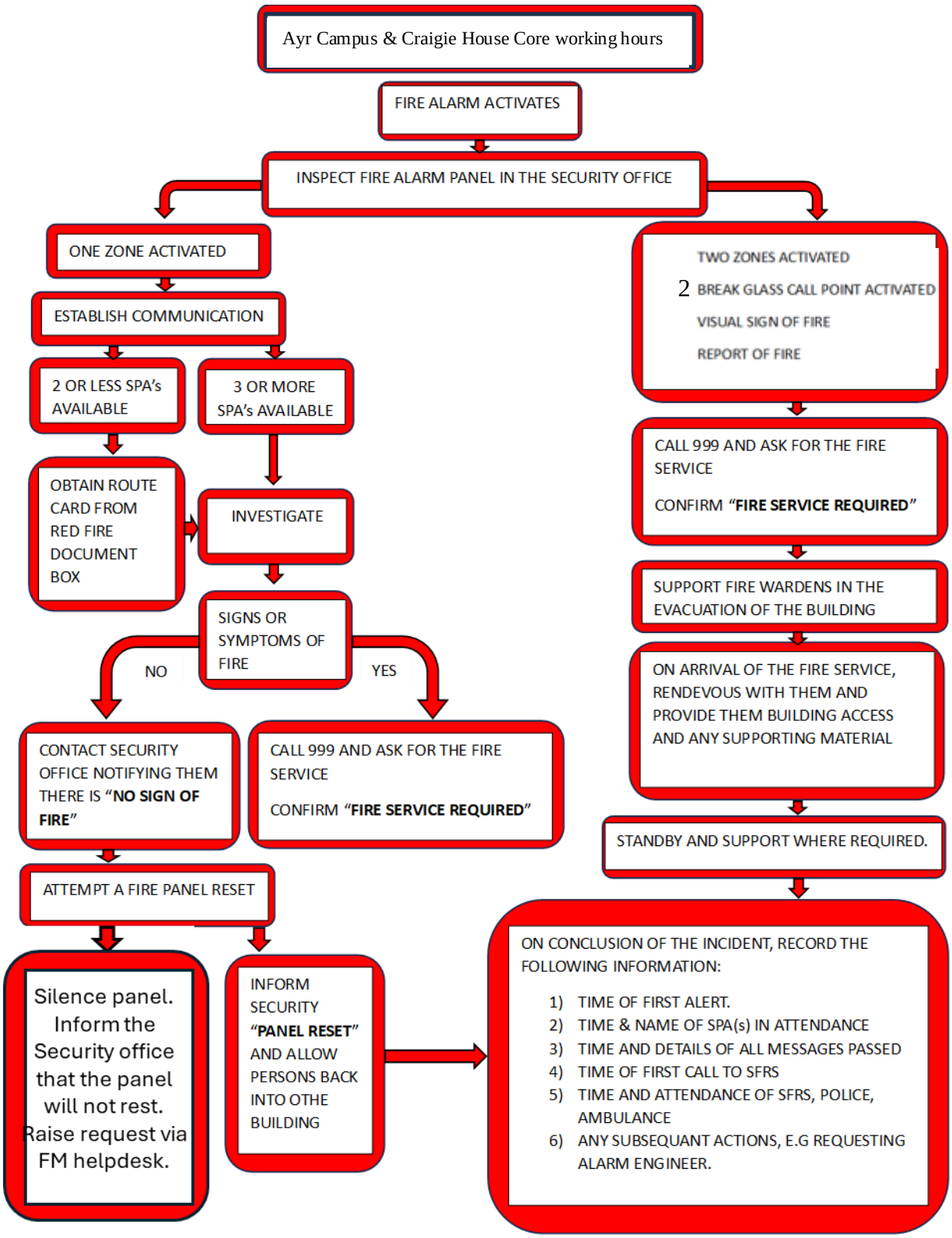
5. Lady Lane and George St – Core Working Hours



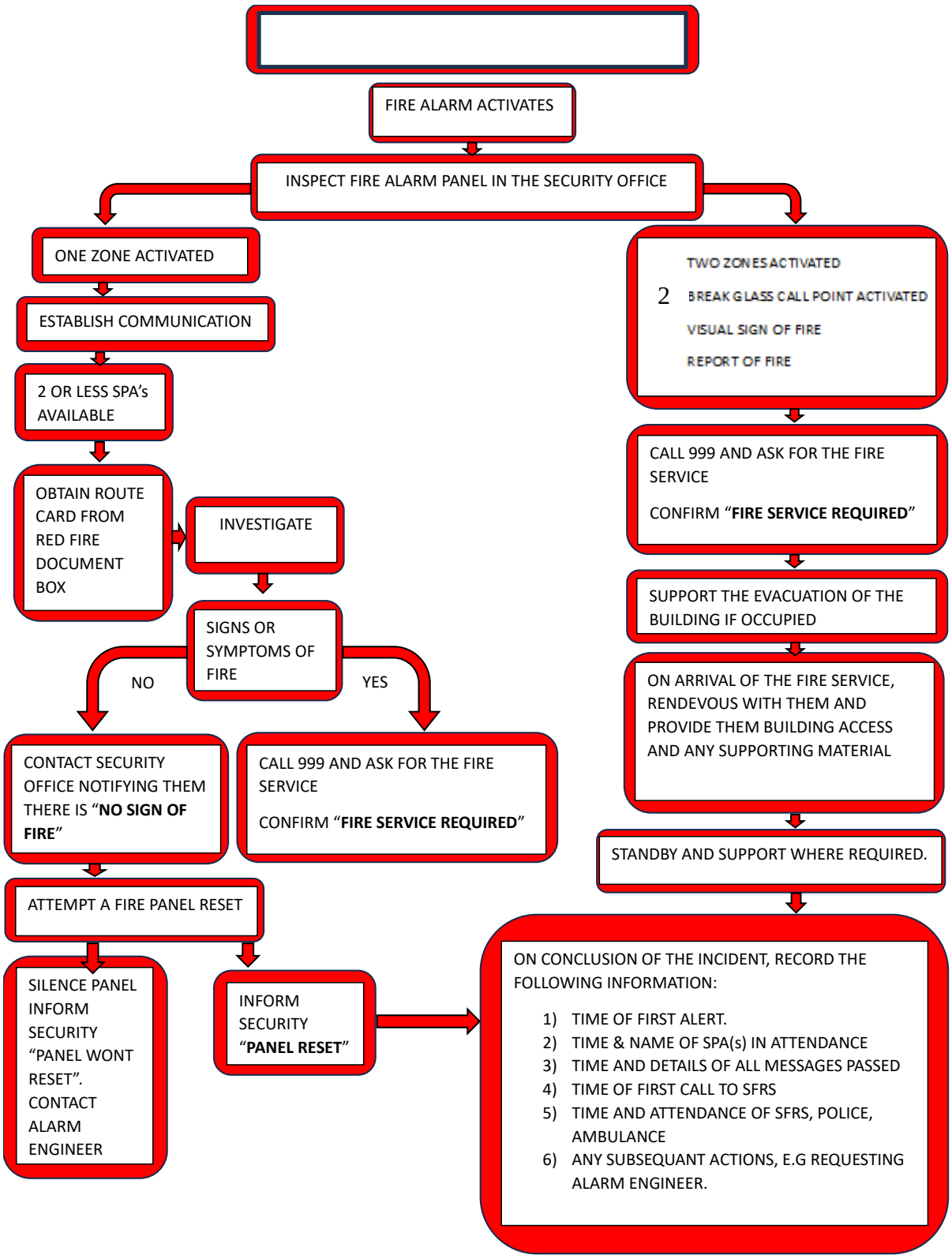
6. Lady Lane and George St – Out of Hours



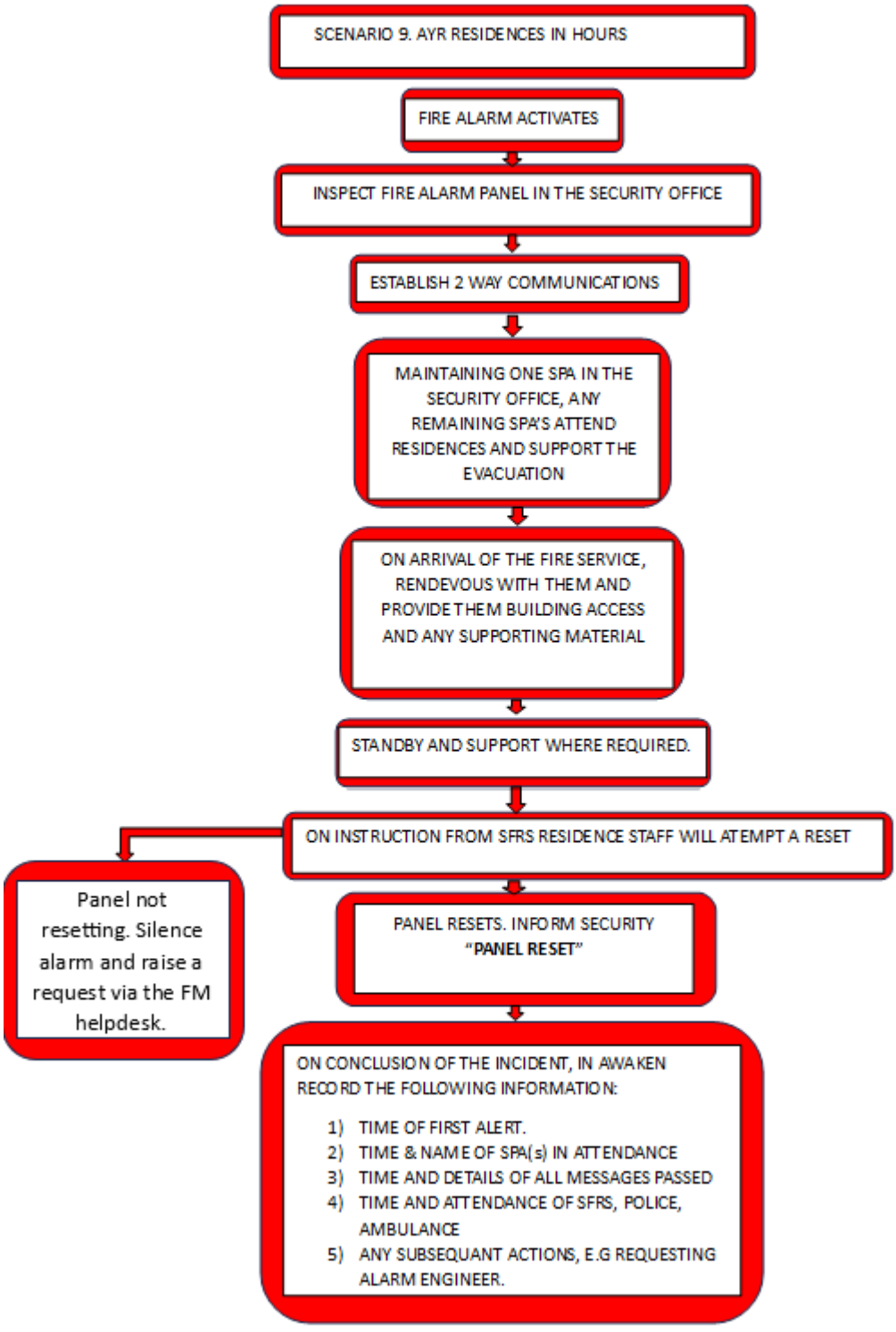
7. Ayr Campus & Craigie House – Core Working Hours



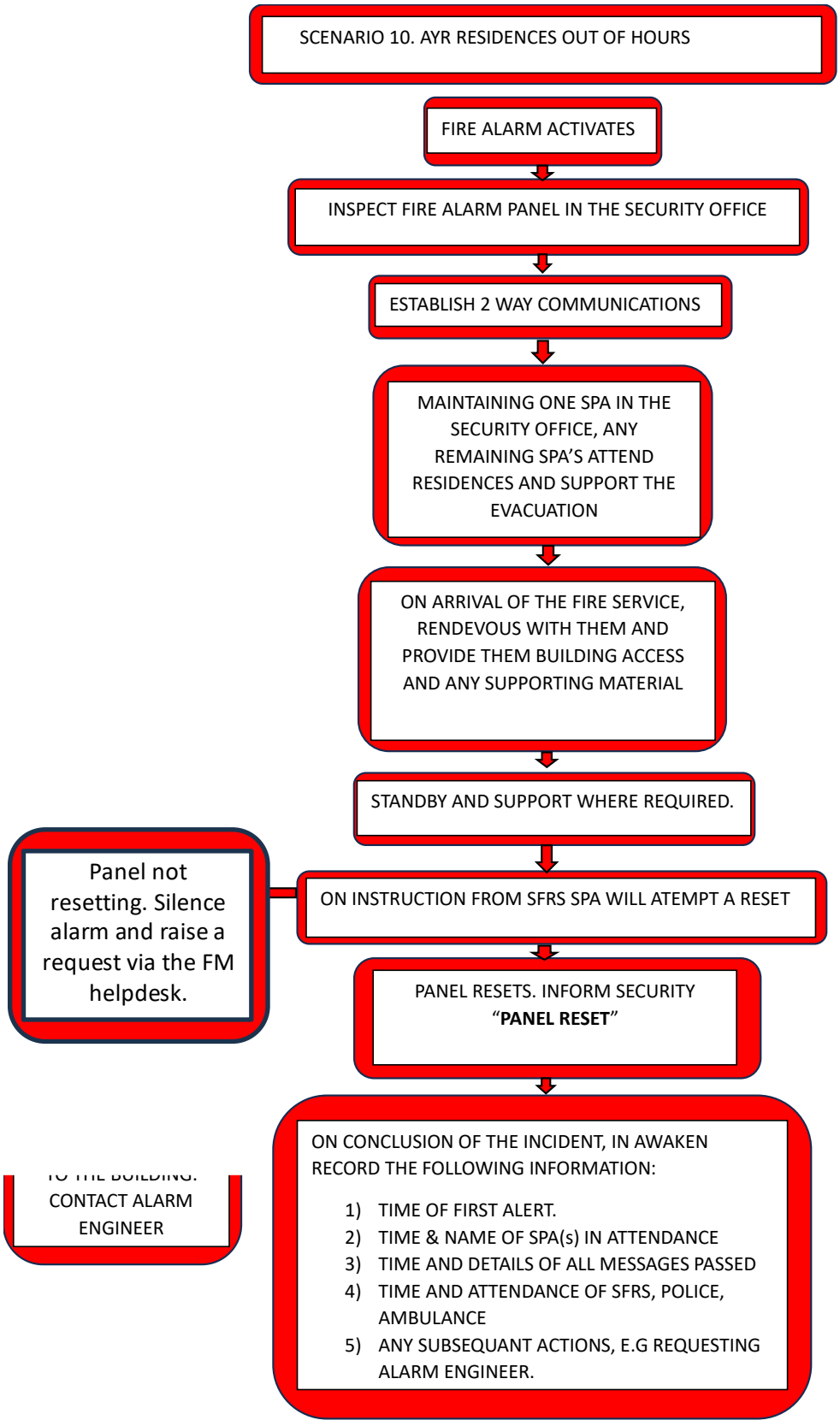
8. Ayr Campus & Craigie House – Out of Hours



9. Ayr Residency – Core Working Hours



10. Ayr Residency – Out of Hours



Appendix 4

Guide to Fire Safety During Building Works and Refurbishments

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1. Introduction

This document sets out the standards that apply to all UWS campuses and its design requirement for fire safety. It will apply to newly constructed buildings and any existing buildings that are being refurbished. In some cases, this standard exceeds the Building Regulation requirements as it represents good practice in the Higher Education sector.

Building Regulations are a set of minimum standards which only apply to newly constructed buildings or work on buildings which come within the definition of a Material Change of Use or Material Alteration (as defined in the Building (Scotland) Regulations 2004 and the Current Technical Handbooks) and the purpose of this guide will be to provide a standard policy specifying the standard that is required by the University.

This document also seeks to a link between legislation such as the Building Regulations and fire safety management to allow the Duty Holder and any appointed employee or contractor to understand what is required by the University.

2. Objective and Scope of this Document.

This guide is intended:

- For use in the design of all buildings owned and managed by UWS including newly constructed buildings and those being refurbished or subject to a change in use. This guide should also be consulted to inform decisions about tenanted buildings where the implication of building changes (through construction work or change of use) may affect building occupants and users. UWS will cooperate with building owners, building managers and tenants (as appropriate) to ensure compliance with statutory requirements.
- To ensure a consistent approach, and to identify the UWS desired strategy when the proposed use and ongoing building management requirements necessitate a variation from prescriptive standards.

- To facilitate high standards of fire safety design and application, secure best value and sustainability in relation to the design and use of UWS premises.

- It is important to recognise that UWS premises are occupied and used by a variety of people with different capacities and requirements, and it not limited to students, academics and other UWS staff.

The effective application of fire safety design and management principles should not be considered in isolation, and this document should therefore be viewed alongside

other relevant UWS policies, guides and standards relating to the management of health and safety, equalities, procurement, environmental protection and quality. The most recent versions of reference documents and policies are to be referred to when undertaking any new build or refurbishment project.

3. Governance and responsibilities

The Fire (Scotland) Act 2005 establishes the requirement for the University to undertake fire risk assessments and to address preventative and protective measures aimed at reducing the risk of fire and mitigating its effects.

The Fire (Scotland) Act places a duty on the 'Duty Holder' to:

"Make and give effect to such arrangements as are appropriate, having regard to the size of his undertaking and the nature of its activities, for the effective planning, organisation, control monitoring and review of the preventative and protective measures."

The Duty Holder for all UWS premises, as defined in the Fire (Scotland) Act 2005 and the Regulatory Reform (Fire Safety) Order 2005, is the appointed person, usually the most senior person i.e., Heads of School/ Directorate, with the responsibilities to ensure compliance of this Fire Procedure within each building.
(Refer to current Fire Safety Plan (Responsibilities)

The day-to-day responsibility for fire safety in design sits within the UWS Estates and Relevant Facilities Management within tenanted properties.

4. Legislation and Standards

Fire safety legislation, Building (Scotland) Regulations 2004 - Non-Domestic Technical Handbook (Current Edition) along with relevant British Standard documentation are in place to support designers in arriving at a suitable and sufficient final design solutions.

The reference to any relevant guides is not intended to be exhaustive but to provide an indication of the range of requirements that need to be considered when approaching fire safety design and management.

The University will comply with all relevant legislation relating to the design and build of its accommodation and to ensure that an appropriate and broadly acceptable standard of fire safety management is adopted, the guidance described in this document takes into consideration the requirements and recommendations contained in the following documents:

1. Building (Scotland) Regulations 2004 - Non-Domestic Technical Handbook (Current Edition)

2. The Building Regulations 2010, Fire Safety Approved Document B, Volume 2, buildings other than dwellings.

3. BS 9999 Code of practice for fire safety in the design, management, and use of buildings

4. The Fire (Scotland) Act 2005

5. The Regulatory Reform (Fire Safety) Order 2005

6. PAS 911: Fire strategies - guidance and framework for their formulation

7. BS 7974 Application of fire safety engineering principles to the design of buildings. Code of practice

8. The Health and Safety at Work Act and associated Regulations, including The Dangerous Substances and Explosive Atmosphere Regulations (DSEAR)

9. The Licensing Act

10. The Housing Act

Non-Domestic Technical Handbooks (Scottish Building Standards NDTH) are issued by the Scottish Government for the purpose of providing practical guidance with respect to the requirements of the Building Regulations and represent the minimum standard that will be applied by the University. There may be circumstances in which the University environment requires variation from national codes of practice or standards based on whole life building use, flexibility to meet property protection and business continuity objectives and the provision of premises suitable for a wide range of users. University standards may include specific provisions for non-fire safety aspects, including the requirements of the Equality Act 2010. As a result, the University may specify higher standards than those set out in legislation, regulation, or guidance.

A fire safety engineering approach that considers a total fire safety package is recognised as being a means of satisfying the functional requirements of the Building Regulations.

When carrying out 'notifiable work' (defined as building work which requires an application under the Building Regulations), the requirements of those regulations must be met. There are 3 different methods of meeting these requirements for the purposes of fire safety:

1. Non-Domestic Technical Handbook (Current Edition).

2. BS 9999 and

3. BS 7974 (series) Fire Engineering.

Those standards allow detailed professional knowledge to be applied to arrive at a final design solution. Consultation between the UWS project managers and UWS Estates prior to the commencement of notifiable work will enable the most suitable approach to be selected, and to ensure consistency of the application of the most suitable methodology to secure the desired solution.

5. Non-Domestic Technical Handbook, BS 9999 Fire safety design and management in buildings & Fire Engineering BS7479 (series)

a) Notifiable work occurs when work relevant to the Building (Scotland) Regulations and the relevant legislation in England, is carried out, for example when a new building is erected, or an existing one is adapted or refurbished and then that work must be "notified" to a building control body. In all cases the work must comply with the requirements of the Building (Scotland) Regulations 2004, and in England, the Building Regulations 2010, however as previously mentioned there are 3 methods of meeting these requirements:

b) Non-Domestic Technical Handbook is the simplest method of showing compliance and should be the first approach used when designing a new or refurbished building. This method entails following the guidance therein. This involves following guidance and tables which show methods for planning early warning and means of escape, fire/smoke resistance and control, restricting fire spread and access for the fire service.

c) Some situations are more complicated, and a more flexible design approach is required, so if design compliance cannot be achieved by using the method specified in Scottish Building Standards NDTH and the Building Regulations 2010, then the approaches defined in BS 9999 can be used.

d) Using the approach defined in BS 9999 allows features such as high ceilings, detection and alarm systems and sprinklers to be used to increase

acceptable travel distances or even decrease the size or numbers of exits or stairs.

e) If the specified design can still not be achieved using the approaches defined in BS then a fire-engineered approach can be used. For this there is a suite of documents under the BS 7974 series which must only be used by a competent person. These standards allow detailed professional knowledge to be used to arrive at a final design which will satisfy more complicated projects.

f) However, application of these 3 methods must only be done by a competent person and although some parts of buildings can be fire engineered and others may appear to be done in accordance with NTDH guidance or BS 9999, the approaches must never be mixed and if an approach is applied to part of a building, then the same approach must be applied to the whole building.

g) UWS Estates in conjunction with Building Control will decide which method should be followed on a case-by-case basis.

h) Where an extension or refurbishment of a defined area is undertaken it must not be considered in isolation and all surrounding areas must be accounted for in the design so as not to create a material alteration for the purposes of the Building (Scotland Regulations) and The Building Regulations 2010, potentially adversely affecting the fire protection arrangements in adjacent areas.

6. Fire Design Strategy

Any UWS design strategy will be based on early detection and warning of fire to preserve life by facilitating speedy evacuation from its premises. New UWS premises and those undergoing major refurbishment will be required to satisfy the principle that the extent of fire and smoke damage will be minimised and confined as close as possible to the point of fire origin. When carrying out ‘notifiable work’ (that is building work which requires an application under the Building (Scotland) Regulations), the requirements of those regulations must be met.

a) Life safety

When considering the factors that will influence escape related to the risk profile and occupancy levels of a specific building, it is important to look at the stages in the process of escape and the maximum distances people can be expected to travel. Escape is generally considered in four distinct stages as follows:

Stage 1 – escape from the room or area of fire origin.
Stage 2 –escape from the compartment of origin via the circulation route to a protected stairway or an adjoining compartment offering refuge.
Stage 3 – escape from the floor of origin to the ground level.
Stage 4 – escape at ground level away from the building.

Means of escape in any new build or refurbishment project will be provisioned in support of a single stage simultaneous evacuation protocol. UWS is responsible for all matters relating to the fire risk assessment process and standards to be applied. This will include the audit of fire strategy, fire risk assessment and statutory compliance throughout build stages.

Means of escape travel distances will be in accordance with the relevant purpose group(s) identified in the Scottish Building Standards NDTH, The Building Regulations 2010, BS 9999 and BS 7479 (series) Fire Engineering, unless, through the application of fire engineering principles, distances can be increased in response to identified need or design requirements.

UWS will seek to avoid the use of external escape stairs or spiral stairs in any future design for a new build project or refurbishment where possible.

During the design phase, every effort will be made to avoid dead-end conditions and inner room situations. Where dead-end corridors exist, they shall be protected corridors, separated from the remainder of the accommodation by a minimum of 30 minutes fire resistance, having FD30S door sets fitted with self-closing devices.

Inner room situations will be addressed by the following:

1. The access room shall not be a place of special fire hazard, and

2. Either a suitably sited vision panel shall be in the dividing wall or door; the access room shall be fitted with automatic fire detection, or the dividing wall shall terminate at least 500mm from the ceiling.

b) Property protection

In addition to life safety, the University is also aware of the potential impact of a fire on its ability to provide first class teaching and research facilities, through loss of facility, research capability or denial of access. Beyond those passive and active fire safety measures introduced for life safety, there is scope to make provision to limit the extent of fire and smoke spread, reducing the time and cost associated with reinstatement, and minimising business interruption.

Wherever practicable, to secure property protection, the guiding principle for compartmentation should be to restrict the spread of fire to the room of origin.

As part of any future design project for new build or refurbishment projects, UWS will ensure that the UWS Business Continuity Plan and procedures (as well as fire risk assessment methodologies) are applied to identify those additional measures required to reduce the potential and extent of business interruption in the event of a fire.

c) Whole-life building approach

When considering the design requirements for fire safety systems in university premises, it is important to adopt a whole-life approach that includes future maintenance and management requirements. This will consider potential changes of use through the life of the building, avoid the need to provide retrospective solutions, and reduce ongoing maintenance and management costs incurred during statutory and standards-compliance testing.

When considering the selection and procurement of active fire safety systems and components, it is important to factor in quality, reliability, availability, serviceability (including access) as well as the cost of replacement parts. UWS will therefore seek to work with designers, installers, commissioning engineers, contractors and suppliers specifying third-party certificated as far a reasonably possible to identify through life costs or otherwise quality assured fire protection products and services wherever possible as part of any new build or refurbishment project.

In addition, UWS will insist on high standards of workmanship to minimise fire risks throughout all building projects to eliminate as far as practicable, costs associated with rectification of problems created by poor workmanship, or product design and specification.

d) Equality Act 2010

In the design and specification of fire safety requirements for building or refurbishment projects, UWS shall consider the needs of all building users, including those who have a disability. As with other aspects of fire safety, designing-in measures is more cost effective than retrospective installation.

Fire safety elements to be considered include the provision of evacuation / firefighting lifts, disabled refuges with communication facilities, alarm device provision that support visually and audibly impaired users, accessible doors on exit routes, and evacuation strategies. Evacuation plans will be developed at the planning stage to ensure that facilities are subsequently provided at the development phase.

e) Building Manuals

In accordance with the relevant part of the Scottish Building Standards NDTH, and the Building Regulations 2010, it is the contractor's responsibility to provide fire safety information, including, design, installation, and commissioning certificates, to the 'Duty Holder' at the completion of a project, or when the building or extension is first occupied. This will include information relating to fire alarm and detection systems, emergency lighting provision, automatic suppression systems and cause and effect' devices such as plant or machinery interfaces and electronic door access override controls.

This information will form the basis of a Building Manual that will be provided to all new buildings or existing buildings following major refurbishment, supplemented by generic and building specific fire safety management information. Manuals will also contain plans and schematics showing the location of all fire safety equipment provided within the building, together with details of the ongoing maintenance and test requirements.

For those buildings that have a fire engineering solution, the Manual should contain a description of the principles, design assumptions and calculations supporting the solution employed, together with the ongoing maintenance and management requirements.

f) Fire safety management

It is widely acknowledged that the facilities installed into a building for life safety will only be effective if it is adequately managed, maintained and monitored over the whole life of the building, and if those persons responsible for fire safety management are adequately trained to manage fire safety, and handle incidents.

To ensure that an appropriate and acceptable standard of fire safety management is adopted, the University will take recommendations contained in the Building Regulations 2010, BS 9999: Code of practice for fire safety in the design, management and use of buildings, BS 9997: Fire risk management system - Specification, and other relevant best practice into account.

The guidance contained in BS 9999 and BS 9997 is primarily concerned with the safety of persons in and around buildings but also considers the need to protect property and the environment, and to minimise business disruption.

The relevant parts of the Fire (Scotland) Act 2005, and The Regulatory Reform (Fire Safety) Order 2005

places a duty on the Duty Holder to carry out and maintain suitable and sufficient fire risk assessments.

Fire safety design can only work if supported by effective fire safety management and controls that limit 'unsafe' practices and reduce the likelihood of a fire occurring. It is essential therefore that building managers/custodians, including tenanted buildings, are actively engaged in the development and review of fire safety management procedures, guidance, and audit.

7. Consultation and Communication

The University is committed to ensuring that internal and external communications and consultation processes relevant to this guidance are in place and are effective.

Consultation and communication regarding the University's fire safety information will be in accordance with existing procedures and processes detailed within any relevant guidance issued by the University.

8. Life Safety

8.1. Occupancy

The basic principles underpinning effective fire safety arrangements is that persons within a building should receive early warning in the case of an outbreak of fire and should be able to make their way to a place of safety, without reliance on emergency responders. A place of safety is generally accepted to be outside the building at a point from which evacuees can safely disperse.

To make their way to a place of safety, persons may pass through a route classed as a place of relative safety such as a protected staircase, corridor, or through a dividing wall between buildings or within buildings.

When considering the means of escape from premises, occupancy numbers and characteristics will need to be factored into design and provision. The Scottish Building Standards NDTH provides the basis for calculating the capacity of stairs and exits provided for means of escape purposes and will be used by the University in all future projects. The occupancy capacity of a room or occupied space is defined as the maximum number of persons it can hold, based on dividing the useable floor area by a floor space factor which, in the case of places of assembly is currently 0.5m^2/person. The calculated occupancy capacity will in turn inform the requirement for exits (number, location, and width).

When considering the means of escape, and the active and passive fire safety measures required to satisfy the above principles, consideration must be given to infrequent users of the premises, including members of the public who may visit. Additional considerations are also required in those premises used for entertainment and where alcohol is licensed for sale. Relevant guidance will be applied in those circumstances together with consultation with the appropriate Licensing and enforcing authorities within whose areas the premises are located.

8.2. University administration, teaching and leisure facilities

When calculating the exit requirements for larger teaching, conference and leisure facilities, and places of assembly, reference will be made in the first instance to the methods of calculation of occupancy figures contained in the Scottish Building Standards NDTH, together with any associated guidance issued by the Fire and Rescue Service and Licensing Authorities. A suitable risk assessment based on the intended occupation and use of the space in question shall also be conducted.

In larger teaching or seminar rooms where the occupant capacity calculation exceeds 60 persons, exit provision will be in accordance with the requirements contained in NTDH.

8.3. Residential accommodation, including halls of residence

Scottish Government Fire safety guidance and The Regulatory Reform (Fire Safety) Order 2005 for existing premises with sleeping accommodation provides detailed information that will be applied within all residential premises as provided by the University.

Communal kitchen/dining areas will incorporate a design layout that secures means of escape and minimises fire hazards with features that include siting the kitchen area and cooking appliances at the furthest point from the exit door from the room.

Kitchens with cooking appliances are provided with devices designed to limit the potential for a fire involving unattended cooking, by use of a timer device to automatically switch the device off after a specified time.

Doors from kitchen/dining rooms will be Fire doors providing a fire resistance of not less than 30 minutes FD 30S (Short duration) standard, be made positively self-closing by means of an overhead self-closing device.

8.4. Evacuation strategy

In the design and construction work for new buildings and refurbishments, UWS will aim to apply a simultaneous single stage evacuation strategy. Therefore, fire detection and alarm system design and performance, as well as building evacuation plans will be tailored to support this strategy.

Fire safety procedures within the University must make provision for occupants who might need assistance to make their way to a place of safety. This will include any future new build and/or any major refurbishment projects. This will extend to the provision of refuges / temporary waiting spaces with communication facilities, evacuation lifts, or to any firefighting lift used for evacuation purposes, subject to the agreement of the fire and rescue service.

Refuge / Temporary Waiting Spaces will comply with the following:

- Enclosed in fire resisting structure.
- Provided with two-way communications.
- Accessible to and from the outside via a protected escape route.
- Provided with emergency lighting.
- Provided with Fire Action Notices, emergency numbers and egress procedure.
- Sole use for egress purposes for individuals with identified special egress needs.
- Refuge areas should only be used as a temporary haven whilst awaiting egress.

Refuge communication facilities will be installed in accordance with BS 5839: Part 9 Current Edition. Code of practice for design, installation, commissioning, and maintenance of emergency voice communication systems, and connected to Campus Security.

Where there is an identified need to use evacuation chairs or other portable devices, consideration must be given to the number, location, and availability of university personnel to aid evacuation.
To comply with Health and Safety legislation, all members of staff who would be expected to use evacuation equipment i.e., an Evac Chair must have documented training and certification to demonstrate competency in their ability to use the chair. This includes relevant refresher training being carried out at recommended intervals.

9. Property Protection

As stated above, the University recognises the value of measures aimed at preventing business interruption and reducing the impact of a fire on its operations and reputation.

Fire protection measures aimed at property protection will be considered in all new building designs and existing property improvement or refurbishment programmes. Such measures may include additional or increased standards of compartmentation beyond that required for life safety, and the addition of active fire safety measures including fire suppression systems.

10. Special risk areas

Special fire hazard areas are defined within Scottish Building Standards Non-Domestic Technical Handbook (NDTH) and The Building Regulations 2010, as being boiler rooms, oil-filled transformer rooms, storage spaces for fuel or other highly flammable substances (addressed through fire risk and DSEAR assessment), lift motor rooms, chemical stores. Additional consideration should be given to service risers, areas containing plant or goods of high value, data processing equipment, high hazard goods or processes, or any business-critical areas seek advice from Safety Services. Special risk areas will be required to meet specific requirements for compartmentation, including doors and service penetrations, automatic fire detection and signage.

A protected lobby will be provided between an escape stairway and a place of special fire hazard. The lobby should have suitable permanent ventilation provided in accordance with Scottish Building Standards NDTH or should be protected from the ingress of smoke by a mechanical smoke control system.

Special risk areas will be equipped with automatic fire detection appropriate to its intended use.

a) Tea points and rest rooms

UWS will seek to limit and manage rest rooms and ‘tea points’ ensuring that the area within which they are situated is adequately fire protected and the range of appliances provisioned is acceptable e.g. kettles or coffee machines, microwave ovens and fridges.

Doors to rooms containing tea points or similar facilities will be required to offer a minimum of 30 minutes fire resistance (FD30S), complete with intumescent strips and cold smoke brush seals, and be made positively self-closing by means of an overhead self-closing device.

b) Laboratories

Laboratories will be enclosed in fire resisting materials offering compartmentation standards as determined by Scottish Building Standards Non-Domestic Technical Handbook and the Building Regulations 2010 document.

Doors to laboratories will be equipped with self-closing devices. All penetrations in compartmentation shall be effectively fire stopped using proprietary materials and methods to the same fire-resisting standard and certified as such by the installer. Fire and health and safety hazards shall be anticipated and carefully evaluated so that appropriate protective measures can be incorporated into the design wherever possible. There must be sufficient and suitable storage facilities within laboratories based on projected quantities and classes of materials.

Stocks of flammable liquids will be stored within metal storage cabinets having a minimum resistance to fire of not less than 30 minutes.

Laboratories shall keep the volume of flammable liquids to a minimum. From guidance from the HSE this is notionally a maximum of 50 litres in any laboratory. Smaller volumes of 500ml may be present on the laboratory bench or shelves.
Stocks of compressed gases will be stored in external stores and within suitable storage cages.

Hazard warning signage in accordance with the Health and Safety (Safety Signs and Signals) Regulations and the Classification, Labelling and Packaging of Chemicals Regulations, like that required by COSHH Regulations, will be affixed outside laboratories, appropriate to the hazards contained therein.

c) Plant rooms

Plant rooms containing electrical distribution, ventilation or air handling equipment, or heat generation and distribution equipment will be enclosed in fire resisting materials offering a minimum of 60 minutes fire resistance, to include access doors. All penetrations in compartmentation shall be effectively fire stopped using proprietary materials and methods to the same fire-resisting standard.

Third party certification will be required.

Mechanical plant will be interfaced with the fire alarm system, together with any gas or fuel intakes. All such interfaced equipment must be provided with a key switch to allow independent testing of the system and equipment or activation by the Fire Service if required.

Heat generation equipment using gas will be required to have flame failure devices fitted.

d) Kitchens

Kitchens within the University that have commercial/industrial cooking ranges will be required to be contained within a fire rated compartment meeting a minimum of 60 minutes (Medium Duration) fire resistance, including any doors and service penetrations that pass through the structure.

Access to servery areas or dining rooms will be provided with doors FD30S, self-closing and fitted with vision panels, together with automatic shutters designed to release on actuation of fire detection within the kitchen or servery, for other openings.

Kitchens within the University that contain commercial/industrial cooking ranges, will be provided with automatic fire suppression systems such as the Ansul Restaurant Fire Suppression system where appropriate.

Hoods and extraction ductwork, including access points and filters will be specified and designed in such a way as to reduce fat, oil and grease deposits building up within them, and to ease cleaning and maintenance. Baffle or cartridge type filters should be specified in preference to mesh types. Consideration will also be given to the provision of automatic fire suppression within extraction ductwork. Best practice guides DW172 and TR19 (BESA publications) will be used to inform design principles for use in the University environment.

Kitchens will be provided with gas-proving equipment, fire detection and CO2 monitoring devices; all gas-fuelled appliances will be equipped with flame failure devices.

e) Storerooms

Storerooms will be enclosed in fire resisting materials offering a minimum of 30 minutes fire resistance, to include access doors. All penetrations in compartmentation shall be effectively fire stopped using proprietary materials and methods to the same fire -resisting standard. Doors to storerooms shall be FD30S standard, complete with intumescent strips and cold smoke brush seals, and be made positively self-closing by means of an overhead self-closing device.

11. Technical requirements

a) Passive fire protection

Passive Fire Protection (PFP) is an integral component of structural fire protection and fire safety in a building. PFP attempts to contain fires or slow the spread, through use of fire-resistant walls, floors, and doors.
Structural fire protection safeguards the essential structural components of the building and its integrity.

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:

- Sub-division of the building with fire-resisting construction.

- Installation of suitable automatic fire suppression systems.

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.

Compartmentation is achieved through the introduction of fire barriers formed from walls, floors, ceilings and cavity barriers. The purpose of compartmentation is four-fold, namely:

- Preventing rapid fire spread trapping occupants in the building, and protecting escape routes.

- Reducing the possibility of fires becoming large and therefore more dangerous to occupants, the fire and rescue service, and persons in the vicinity of the building; and

- Containing the fire to a single compartment, minimising fire damage to the property and business interruption.

- Protecting areas of high financial or strategic value.

Scottish Building Standards NDTH and the Building Regulations 2010 document, specify the requirements for building sub-division based on the use of the building, the fire loading, height to the topmost floor and the availability of sprinkler protection. University floor space could be classed in the ‘assembly and recreation’ purpose group, or ‘shop and commercial’ for which Building Regulations permit a compartment size of 2000m2.

This is a substantial area and as a result sub-compartmentation of areas over 1000m2 will be considered, based on property protection/business continuity needs, and risk assessment. This can be achieved by utilising internal walls and corridors. The number of openings shall be kept as low as reasonably practical, and hidden voids will be protected by suitable cavity barriers as required.

Except for joinery products, new build projects will be constructed from building materials that will not make a significant contribution to the early stages of a fire or contribute to the spread of fire. Construction provisions apply to walls common to two or more buildings, walls dividing buildings into separate parts, and construction enclosing special fire hazards.

Special fire hazard areas are defined within Scottish Building Standards NDTH as being boiler rooms, oil-filled transformer rooms, storage spaces for fuel or other highly flammable substances (addressed through fire risk and DSEAR assessment), lift motor rooms, chemical stores. Additional consideration should be given to areas containing plant or goods of high value, data processing equipment, high hazard goods or processes, or any business-critical areas.

For this guide, in addition to plant, boiler rooms, flammable substance stores or process areas, the University has identified the following as being special fire hazard areas, items or processes. As a result, any area or room falling into the above categories or locations will be separated from the remainder of the building by construction offering a minimum of 60 minutes fire resistance.

Walls and doors to protected corridors and protected staircases forming means of escape will offer a minimum of 30 minutes (Short Duration) fire resistance. Corridor walls will be continuous to the structural soffit. Corridors leading to alternative means of escape will be sub-divided in accordance with the guidance contained in Scottish Building Standards NDTH.

b) Penetrations, cavity barriers and fire stopping

Every service that is installed in a building, such as water pipes, electrical supplies, cable trunking and lighting units, can compromise the fire resistance of a room by creating openings in its walls, floor and ceiling. In respect of the protection of openings and fire-stopping to inhibit the spread of fire, the Building Regulations state:

“If a fire -separating element is to be effective, every joint or imperfection of fit, or opening to allow services to pass through the element, should be adequately

protected by sealing or fire-stopping so that the fire resistance of the element is not impaired."

Provisions in respect of fire-stopping are detailed as follows:

- joints between fire-separating elements should be fire-stopped.
- all openings for pipes, ducts, conduits or cables to pass through any part of a fire-separating element should be kept as few as possible, as small as practicable and fire-stopped.

The use of a building may change during its life, and it is therefore important to consider what passive fire protection can be included in fire compartmentation to pre-empt the need for future penetrations. The inclusion of devices such as fire sleeves to allow for the running of cables when installing fire compartment walls will provide the end user and future contractors with a safe way of running cables through compartment walls. Intumescent protection sleeves with internal smoke barriers shall therefore be installed where cables pass through fire compartment walls; and should be of a suitable size to allow for future extra cabling.

Any plans and specifications for new build or refurbishment supplied to the University must include details of fire protection measures that are to be included. Any voids within a building need to be effectively separated at determined locations with cavity barriers to limit the unseen spread of fire and smoke. Barriers for fire and smoke should provide at least 30 minutes fire resistance including insulation and integrity; those just for smoke require integrity only.

Where vertical fire separation is specified between floors, a cavity barrier to the required fire rating is necessary between floors and curtain walls or other adjoining substrates. They must be installed to the manufacturer's fire tested detail to ensure that wall deflection due to thermal movement and other factors, will not compromise effectiveness.

Suspended ceiling cavity barriers not forming structural fire separation are typically created by flexible 'curtain' products made from mineral wool or woven glass fibre fabric.
Only certified fire-stopping or linear gap sealing products and systems will be used. Linear Gap Seal is designed to perform as a barrier in construction movement joints and long linear installations in horizontal and vertical applications. Firestopping requirements must be expertly determined and applied to ensure compliance. Third party accreditation is a key requirement. 60 minutes fire-resisting compartmentation is required at all access points and where services leave shafts other than at floor levels. Detection will normally be required at the top of all service shafts.

c) Doors and door furniture

Fire door sets are designed to restrict the spread of fire and the products of combustion within a predicted period and will normally feature a self-closing device. All fire door sets will be marked as a fire door and should be kept always closed. The use of wedges and other items as hold open devices is not permitted within any of the University's premises.

Fire resisting door sets

All door sets identified as being required to protect means of escape will be of a minimum 30 - minute fire resisting standard (FD30S) equipped with a self-closing device, intumescent strips and cold smoke brush seals, tested in accordance with the requirements of BS 476 Part 22 and BS 8214 Doors providing access to circulation areas, and forming corridor sub-divisions will be fitted with vision panels, taking into account the needs of all occupants, including wheelchair users.

Doors on escape route will be required to open in the direction of escape travel. Doors required to open in two directions will be required to be fitted with vision panels.

Store and cupboard doors will be 30-minute fire resisting standard (FD30S), with intumescent strips and cold smoke brush seals but are not required to be equipped with a self-closing device. They will be provided with suitable locking mechanisms to enable them to be kept locked shut when not in use.

Doors to rooms designated as special risk rooms require 60-minute fire door sets to be fitted to meet the requirements of Scottish Building Standards NDTH. Depending on the access requirements, doors can be either fitted with a self-closing device, or the door must be kept locked shut and a fire door sign "Fire Door Keep Locked Shut" affixed to the outside face.

Automatic hold open devices

The use of automatic hold-open devices (electromagnetic or electromechanical) on fire doors may be considered in some instances. Automatic hold-open devices will not be approved for use on doors forming staircase enclosures. Doors held open by automatic hold-open devices must be closed at night, and therefore an automatic timer is to be installed as part of the detection and alarm system, or management arrangements must be put in place to ensure this occurs. Consideration must be given to the needs of mobility-impaired occupants when siting hold-open devices, however auto opening devices that aid mobility impaired persons may not be suitable in all locations.

The requirement for acoustic door hold-open devices should be avoided in new build or refurbishment projects through effective design and planning in favour of electromagnetic or electromechanical hold open devices. Acoustic hold open devices will not be fitted to doors on primary escape routes. The use of acoustic door hold-open devices will only be fitted in other circumstances following a fire risk assessment where recommendations are made to do so accordingly.

Electromagnetic locking devices

Where electromagnetic locking devices are fitted to doors on escape routes for security or access control purposes, including sliding doors, the following shall apply:

- The lock shall release to allow the door to be opened on the actuation of the fire alarm system.
- Each door shall be equipped with a green manual override 'break glass' device complete with relevant signage.
- The lock shall release to allow the door to be opened on the failure of the electricity supply.

Door fastenings

Doors on escape routes should only be fitted with simple fastenings that can be readily opened without the use of a key, and without having to operate more than one device.

The University will specify wherever possible that final exit doors on escape routes are only equipped with push bar or push pad type fittings. In the case of places of assembly such as theatres, seminar rooms or exhibition areas, exit doors will only be fitted with push bar-type fittings.

Self-closing devices

In locations where self-closing devices are required to be fitted to fire doors, they shall be overhead units meeting the requirements of BS 1154. This requirement also applies to double and 1½ leaf door sets, where each leaf shall be fitted with an individual overhead self-closing device.

Double doors are to be avoided wherever practicable and if they must be used should not have rebated meeting edges.

Air transfer grilles

Any fire resisting door that is required to have an air transfer grille fitted shall not be compromised in terms of its fire resisting qualities. Doors that are not required to resist the passage of smoke can be fitted with grilles containing only a heat-activated intumescent type device. Those doors that are required to resist the passage of both

smoke and fire (on internal escape routes) shall be fitted with an electromagnetic / electromechanical device interfaced with the fire detection and alarm system.

Door signage
All fire doors shall be fitted with “Fire Door Keep Shut” signs. Cupboards and storerooms will be fitted with “Fire Door Keep Locked” signs. Doors with electro-magnetic hold-open devices will be fitted with “Automatic Fire Door Keep Clear” signs.

d) Glazing
Glazing forming part of escape routes shall meet requirements contained in the relevant British Standards and Scottish Building Standards NDTH in relation to size, location, and periods of integrity and insulation.

The glazing components of fire doors (vision panels) will be factory fitted clear fire-resistant glazing clearly identified by etched markings and installed in accordance with the relevant standard. Vision panels will be positioned for the benefit of all occupants, including wheelchair users.
Vision panels shall not be obstructed or covered and should always remain clear.

e) Active fire protection

Active fire protection is characterised by the requirement for a ‘response’ to work. The response in question could be either automatic in nature or activated manually. Active fire protection systems include automatic sprinklers, gaseous fire suppression systems, fire curtains or shutters, or openable smoke vents.

Automatic fire sprinklers
Automatic sprinkler systems are an effective way to protect both people and property from fire. The benefits of their inclusion in industrial, educational and commercial premises are well recognised, including within Building Bulletin 100, the Government’s design guide for schools. Sprinklers inhibit fire growth and can hold a fire in check until fire and rescue service intervention.

The addition of sprinklers can also be used to provide design benefits within BS9999 by increasing flexibility and reducing the fire growth rates applied by one category when assigning risk, potentially increasing travel distances. The addition of sprinklers can also reduce insurance premiums, reduce business continuity risk, and support environmental objectives by reducing fire damage and emissions.

Other automatic fire suppression systems
In specific high-hazard or high value locations an assessment will be made to determine whether a fixed inert gas-fire suppression system is required. In locations

where a specific hazard is located and portable fire extinguishers are provided, staff in those areas will be trained in their use. In locations where gaseous systems are provided there will be an in-built delay to enable persons present to evacuate before operation.

f) Emergency and escape lighting

Emergency and escape lighting is generally provided to enable the occupants of a building to safely negotiate escape routes and to locate, and operate as necessary, any fire safety equipment provided. Escape lighting is particularly important on escape routes where there are changes in levels or direction, or where occupants are required to manipulate emergency devices such as door opening mechanisms.

Emergency and escape lighting will be provided in accordance with BS5266, which details the requirements for lighting levels and locations. UWS will specify that emergency and escape lighting luminaires in all new build and refurbishment projects will be of the self-contained battery type, activated automatically in the event of a failure of a local sub-circuit, with a battery duration of 3 hours. Depending on the required location, either maintained (always on) or non-maintained (only lit in the event of a mains failure) will be provided.

A combined emergency lighting luminaire is one that contains two or more lamps, one of which is energized from the emergency supply and the other from the normal lighting supply. Maintained emergency lighting will be specified for use in places of assembly such as theatres, seminar rooms, clubs, and assembly halls within the University.

Emergency lighting units in all new build premises or buildings undergoing major refurbishment will have a self-test functionality and monitoring capability utilising a Digital Addressable Lighting Interface (DALI). In other circumstances, devices are to be installed in a uniform manner that ensures that tell-tale devices can be readily seen from the ground without having to resort to ladders or other equipment to access them.

g) Fire detection and alarm systems

The University recognises the Fire Scotland Act 2005 and Fire Safety (Scotland) Regulations 2006 requirement to equip premises with appropriate fire detection and alarms.

To provide early detection and warning of fire in any of its buildings, the University will ensure that all its buildings are equipped with automatic fire detection and alarm systems conforming to the relevant parts of BS5839: Part 1.

The British Standard has different categorisations for fire alarm and detection systems, based on life or property protection objectives, and the extent of detector coverage provided.
The University's ongoing position is that the provision of fire alarm and detection systems underpins its design strategy objective of preserving life by providing early detection and warning to occupants of its buildings.

This will be achieved by the following (determined through fire risk assessment):

- For buildings providing sleeping accommodation – Category L1/ L2: with automatic fire detectors installed in all areas within the building.
- For other accommodation – Category L3: automatic fire detectors installed in all escape routes, rooms opening onto escape routes, and other defined areas, regardless of the size of the premises and the category of system installed.
- All areas classed as special risk areas will be provided with appropriate fire detection.

To avoid unwanted fire signals, programmable multi-sensor detectors will be installed in special risk areas. Where the ambient background noise precludes the use of alarm sounders, visual alarms will be installed. Only addressable fire alarm systems will be specified.

Detectors sited in remote locations will be fitted with a remote indicator in the nearest corridor or circulation space.

All fire detection and alarm components will be uniquely numbered. All devices be addressable and uniform in design, to enable detector heads to be interchanged when circumstances dictate.

Subject to an identified requirement, all new buildings will be provided with a voice alarm system in addition to sounders / strobes provided in accordance with BS5839: Part 1 as above. All new voice alarm systems will be designed and installed to meet the requirements of BS5839: Part 8. All new fire alarm sounders will have the facility to make voice announcements.

New fire alarm installations shall be provided with the capability to accommodate vibrating pagers for persons with a hearing impairment, linked to the relevant fire alarm panel, to provide an alert to individuals that the fire alarm system has actuated. In addition, sounders incorporating strobe alerters will be used in corridors and circulation spaces and in other areas determined by GEEP/PEEP processes.

Manual Call Points will be provided in accordance with BS 5839 Part 1.

Fire alarm installations will be required to ensure that all actuations will automatically be transmitted to Campus Security from all new installations in buildings. Relevant mechanical plant within each building is required to be interfaced with the fire alarm system e.g. air handling, or mains gas. Interfaces will also be required for door-hold magnetics / mag locks to report the incident to UWS Campus Security.

Steps will be taken to reduce the incidence of false or unwanted fire signals at the design stage by the introduction of high integrity detection – devices capable of robust differentiation of false, unwanted, and real fire signatures, and methods of communicating actual fire alarms to Campus Security.

Guidance on the reduction of unwanted fire signals through effective design and management will be obtained from the following sources:

- British Standards Institution (BS 5839 -1)
- British Fire Protection System Association

- Fire Protection Association
- Fire Industry Association
- National Fire Chiefs Council (NFCC)
- SFRS

h) Fire safety signage

Fire signs are generally required for the following reasons:

- To identify exit routes and doors
- To identify the location of fire safety equipment or devices e.g.
- To provide information to persons present e.g. Fire Action Notices

Fire safety signage must conform to the requirements of the Health & Safety (Safety Signs and Signals) Regulations and BS 5499.

Exit signage will include ‘figure moving through doorway’ pictograms. People with restricted vision or colour perception may have trouble in seeing or recognising fire safety signs which will include fire exit signs. Additional fire safety signs may be required that are sufficiently large and well designed with a good, clear typeface and sited so that they can be seen easily and can be readily distinguishable. It is sometimes useful to supplement a safety sign with text to aid understanding.

Fire safety devices e.g. manual call points, emergency door override points, and firefighting equipment will be provided with relevant signage, incorporating pictograms.
Fire Action Notices will be located correctly adjacent to all Manual Call Points, as well as places of assembly and circulation. Non-illuminated signage shall be photo luminescent.

All signage should be as large as practical to aid those with impaired vision. There should also be clear colour contrast of doorways, edge marking of stairs and steps etc.

i). Fire-fighting shafts

New buildings with a floor height of more than 18m will be provided with firefighting shafts containing firefighting lifts in accordance with Scottish Building Standards NDTH. Buildings with a storey floor area exceeding 900m2 will contain at least two firefighting shafts.

j) Fire Hydrants: dry and wet rising mains / access for the fire and rescue service

Fire hydrants, fire and rescue service access, and rising mains will be provided in all new buildings in accordance with the requirements contained in Scottish Building Standards NDTH and BS9990.

12. Other provisions

a) Lightning protection
Lighting protection will be provided in accordance with BS EN 62305 in those premises where an assessment of the risk has been undertaken by a competent engineer and recommendations are made for its installation.

b) Security
Because of its location and operational environment (open access), the University Campus cannot be a wholly secure environment, despite the presence of 24/7 security. Security from the threat of arson will be considered during the design phase of any new project.
Advice and information will be sought from Campus Security and external security professionals as appropriate to reduce the opportunity and likelihood of arson, through practical means.

Where CCTV is to be provided for security purposes, consideration shall be given to using Infra-Red enhanced cameras that give better night-time vision allowing operators to more easily identify smoke and small fires.
Access control will be provided to high risk, high value, or commercially sensitive areas within all new buildings.

c) Furniture and furnishings

The University's policy in relation to the provision of furniture and furnishings, is that only those items that conform to the Furniture and Furnishings (Fire) (Safety) Regulations (current edition) will be procured for use within UWS.
In addition, items introduced into the University by academics, staff, and students will be required to conform to the Furniture and Furnishings (Fire) (Safety) Regulations (current edition).

d) Waste management

Any new building design will incorporate adequate secure storage for bulk waste with lockable receptacles located either externally at least 8m from buildings, preferably in a secure compound, or in a 60-minute fire compartment within the ground floor only accessed via an external locked door

e) Storage

Consideration will be given to the provision of lockable storage areas and cleaner's cupboards not only for combustible materials but also bulky or temporary equipment and furniture to prevent the obstruction of escape routes. Storage in vertical risers and plant rooms will not be acceptable unless suitable compartmentation and means of warning in case of a fire are provided.

Gas cylinders, hazardous chemicals and substances may be necessary in some areas within buildings. Where this is the case, appropriate storage facilities will be incorporated into the design.

Suitable external storage of gas cylinders is preferred.

It is recommended that external gas cages usage meets the following criteria:

- Store all cylinders in designated areas that are secured.
- Flammable, toxic and Oxygen (or any Oxidizer) shall be separated from each other by a distance of at least 3 meters, or by a non-combustible barrier at least 1.5 meters high with a fire resistance rating of at least 30 minutes.
- Inert gases (Argon, Nitrogen, Helium, Carbon Dioxide), since they are chemically inert and compatible with all other gases, may be used within the separation distance.

- Outdoor storage shall be kept clear of dry vegetation and combustible materials for a minimum distance of 4.5 meters.
- Cylinders stored outside shall not be placed on the ground (earth) or on surfaces where water can accumulate.
- Storage areas shall be provided with physical protection from vehicle damage.
- Do not store cylinders near elevators, loading platforms, gangways, or under operating cranes, or other areas where they can be damaged by falling objects.
- Cylinders shall not be exposed to temperatures more than 125F 51.7C.
- Smoking and open flames shall not be permitted in Oxygen and flammable gas storage areas or within 6 meters of such areas.
- Where gases, hazardous chemicals and substances are stored internally, signage complying with the Classification, Labelling and Packaging Regulations will be required at the external entrances into the building and on the door leading into the room where the cylinder or substance is kept.

f) Electrical sockets

Sufficient electrical sockets on sensitive RCD devices must be provided to negate the need for multi-point adaptors and compensate for the managerial limits of portable appliance testing (PAT).

g) Competent designers, providers, and installers

The Fire Protection Association's 'Essential Principles Design Guide' states: "All fire protection products / systems shall be installed by adequately trained specialist installers who shall be third party certified to install the specific product / system when an appropriate scheme is available".

Design, Installation contractors will therefore hold third party certification for each type of passive fire protection they install. A sufficient level of competence and expertise with evidence of a robust Quality Assurance system is required to ensure that fire protection systems meet the required standard.

To achieve the most effective and reliable fire protection, all active and passive fire protection products, installers and commissioning companies are to be third party certificated by a body holding UKAS (United Kingdom Accreditation Service) accreditation for the product or services they certificate. Manufacturers in such schemes will be pleased to provide details of their certification, typically by bodies such as Building Research Establishment (LPCB), BAFE® (British Approvals for Fire Equipment) Warrington Certification (FIRAS), BM TRADA, IFCC, FM Global and Underwriters Laboratories.

An alternative to 3rd party accreditation schemes to guarantee competent installations is by using inspection and auditing services to guarantee that fire safety

components are being installed competently to the required standard of workmanship. Suitable organisations to undertake such inspections include British Research Establishment (BRE), and Warrington Certification.

h) Commissioning and Handover

In accordance with the requirements of the CDM Regulations, Building Regulations and BS9999, the principal contractor for all new buildings is responsible for ensuring that fire safety information is provided to the client. This should be in the form of a fire safety manual containing design information, commissioning and completion certificates, and system operating, maintenance and repair documentation.

Appendix 5
Fire Safety Logbook

Building Name…….

Address……...

……..

Duty Holder…….

Emergency Contact Numbers

Estates Maintenance: …….

Health and Safety……

Alarm Company…….

Disability Advisor…….

This fire safety logbook has been prepared to assist the **Duty Holders** to co-ordinate and maintain a fire safety record keeping system.

Whilst this book is not comprehensive it seeks to cover the main requirements for demonstrating compliance with current fire safety legislation. The logbook should be kept up to date and readily accessible for inspection by the enforcing authority or for auditing purpose by the **Fire Safety Officer** when required.

The logbook will guide you as to the current intervals of inspection and maintenance for the equipment and fire safety training. A copy of the logbook is held on the intranet site and additional pages or forms can be printed as required.

All requirements for servicing and maintenance should be arranged in line with Estates Management.

It should be noted that it is a disciplinary offence for a person to knowingly make a false entry into the Logbook.

Content of Logbook

1. Testing and Maintenance Procedures and Frequency
2. Visits by Fire and Rescue Services Record
3. Record of Tests Fire Alarm System - Smoke Detector
4. Fire Fighting Equipment - Record
5. Door Maintenance and Inspection Record
6. Emergency Lighting System - Record of Tests
7. Miscellaneous Equipment- Record of Tests
8. Record of Fire Alarm Activations
9. Record of Fire Drills

2 The Fire Safety System

Guidance notes on testing and maintenance procedures and frequencies.

Fire Extinguishers

- Monthly inspection to ensure they are in the proper position and have not been discharged, or lost pressure (those fitted with pressure indicators), or suffered obvious damage.
- Annual inspection - this should be completed by a competent person following the manufacturer's instructions.
- At intervals not exceeding those below, test by discharging the extinguishers. It should be noted that the discharging of extinguishers could provide an ideal opportunity for staff training.
- Water/foam (all types); powder (gas cartridge and stored pressure and other primary sealed types) every 5 years.
- Carbon dioxide, powder (stored pressure primary sealed); every 10 years (20 years when the annual inspection has been followed) and subsequently after a further 10 years and thereafter at 5 years intervals.

Hose Reels

- Regular checks by a responsible person to ensure reels are unobstructed and show no obvious signs of leaks or corrosion.
- Annual inspection and maintenance must be carried out as per BS EN 671-3:2000 pt6

Fire Alarms

- It is important that the operation of testing does not result in an unwanted alarm signal to a receiving centre. Any such centre should be contacted immediately before and after all tests.
- Inspect the panel daily for normal operation of the system. Where provided check that the connection to the remote receiving centre is functioning correctly.
- Every week a manual call point should be operated during normal working hours. A different call point should be used for each subsequent test.
- Quarterly and annual inspections and test to be completed by a competent person, examination of batteries and connections including electrolyte levels.
- If similar faults are occurring regularly then consult a maintenance engineer.

Fire Detectors

- Regular visual inspection of detectors for damage, unusual accumulations of dirt, heavy coats of paint and other conditions likely to interfere with the correct operation of the detector.
- Annual test of at least 2% of installed heat detectors by application of a heat source as a check of reliability. Detectors other than heat should be checked for correct operation and sensitivity in accordance with the manufacturer's instruction.

Automatic Door Releases Connected to Fire Alarm System

- Weekly, in conjunction with the fire alarm test check that all doors are being released and closing fully onto the door rebates. This testing is completed by Estates Maintenance.

Emergency Lighting

- Because of possible failure all tests should be undertaken at times of least risk.
- Regularly inspect the system for cleanliness, particularly luminaires. Battery banks and generators should be checked following the manufacturer's instructions. Daily test – check that any previous faults have been rectified, that every lamp in a maintained unit is lit, that the control panel indicates normal. Ensure any fault found is recorded in the Logbook and acted upon.

- Monthly test of self-contained luminaire, by simulation of a failure of a normal lighting supply, for sufficient time to allow all self-contained lighting units to be checked for proper function.
- Annual test of self-contained and central battery systems, by simulation of a failure of the normal lighting supply, for a continuous period of one hour, none maintained and three hours for maintained. During the test check all luminaries for proper function.

Fire Instruction

- At designated intervals, instruction should be given in respect of the action, purpose etc. of the following: discovering a fire, hearing the fire alarm, the assembly point, calling for the fire and rescue service, making safe power supplies etc., use of fire alarms and fire extinguishers and the means of escape routes.

Fire Drills

- At intervals no less than twice a year drills should be conducted to simulate fire conditions, e.g. one escape route obstructed, no advance warning given other than to specific staff for the purpose of safety, the fire alarm should be operated on instructions of management.
- Do not call the fire and rescue service for the purpose of a drill.

Sprinkler Systems

- A competent person should do all tests in accordance with the frequencies specified in the standards.

Door Maintenance

- **Fire doors** – 6 Monthly inspections to be carried out by the Duty Holder in accordance with Section 1.6.2. Fire Doors: BS 9999 (Current Edition).
- Ensure all fire doors are suitably indicated by the appropriate signage (excluding doors to bedrooms).
- **Fire exit doors** – Monthly inspections to be carried out by the Duty Holder to ensure all exit doors are easily opened fully. Ensure appropriate signs suitably indicate all exit doors.
- Any defects should be reported to estates department.

Training for Staff

- All employees must know what to do in the event of a fire. Employees must be trained, if there is training requirements in your area contact Health and Safety.
- When members of the public, students and visitors are present training should consider their safety. New employees and students should be given fire safety instruction at the start of their employment or academic course and refresher training should be delivered at regular intervals, minimum annually but more frequent if risk assessment determines.

Personal Emergency Evacuation Plans

- When employees, students and/or visitors require assistance in evacuation, personal emergency evacuation plans should be drawn up (see personal emergency evacuation plan).

Visits by Fire and Rescue Service – (Completed after Enforcing Authority visit)

Date	Inspecting Officer (capital)	Officers Signature	Comments

Record of Tests - **Fire Alarm System - including Smoke Detector Tests (Completed by Estates Maintenance and/or Contractor)**

Date	**Fire Alarm**		**Automatic door release**	**Automatic detectors**		**Remedial Actions Taken**	**Signature**
	Call Point Location or Number	OK Yes/No	Satisfactory Yes/No	Location or Number	OK Yes/No		

Fire Fighting Equipment - Record (Extinguishers, Hose Reels, Blankets, etc)

(Completed by Estates Maintenance and/or Contractor)

Date	Location or Number	Inspected or tested	Satisfactory YES/NO	Remedial action taken	Signature

Monthly Final Exit Door Check. (Completed by Building Management)

Date	Satisfactory YES/NO	Remedial Action	Signature

Fire Door Maintenance and Inspection Record – (Completed by Estates Maintenance)

Date	Satisfactory YES/NO	Remedial Action	Signature

Emergency Lighting System - Record of Tests (Completed by Estates Maintenance)

Date	Satisfactory YES/NO	Remedial Action	Signature

Miscellaneous Equipment- Record of Tests (dry risers, etc) (Completed by Contractor)

Date	Items, tested etc.	Satisfactory YES/NO	Remedial action taken	Signature

Record of Fire Alarm Activations (Completed by Estates Maintenance)

Date	Location	Reason for Activation	Remedial action taken	Signature

Fire Drills (Completed by Fire Safety Officer)

(A separate sheet may be used to record additional information, including actions taken from the report findings. Observations should include any failures in staff not following procedure, time delays, access routes, information and any personal evacuation comments.)

Date	Reason for drill	Evacuation Time	Observations	Signature