Gateway 1 Planning Submission Fire Statement

For

The Extension at 40 Bernard Street.

Reference: FSE2418

Issue No: 01

09th April 2024

Revision History

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01 – Fire Statement	09th April 2024
Prepared by:	**Contact:**
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Approved by:	**Contact:**
Paul Currie BEng (Hons), PhD, CEng, MIFireE	pcurrie@heliosconsultancy.com 07570 624 720

Client Details

Client:	Imperial Hotels
Client Address:	Tudehope Ltd, c/o Collier International, 50 George Street, London, W1U 7GA
Project:	40 Bernard Street Extension

Validity

This report is produced on the basis of the information and experience available at the time of preparation. It is applicable to the above-mentioned project only in accordance with the client's instructions. It is only valid provided no other modifications are made other than those for which a formal opinion has been sought from and given by Helios Fire & Construction Consultancy UK.

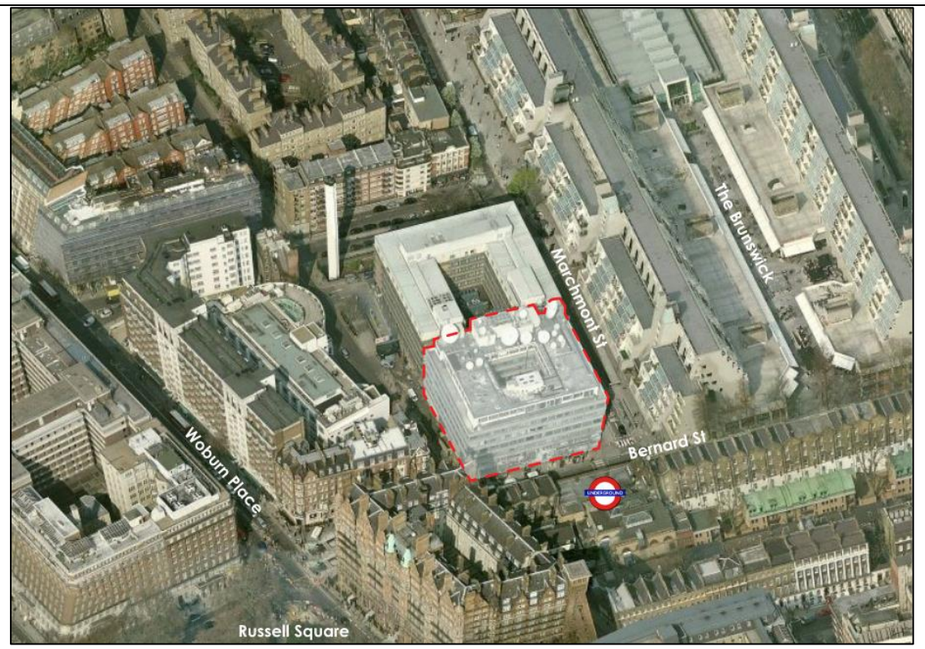
The report outlines the principal opinion of Helios Fire & Construction Consultancy and is prepared based on information issued by other parties, this report should not be viewed as an approval of that information and no liability is accepted for its accuracy.

All legislation quoted is primarily concerned with life safety and property protection is not specifically considered although the fire protection provisions to be provided for the building will offer some degree of property protection.

Furthermore, other issues such as insurers' requirements, cultural heritage, environmental, or continuity issues have not been specifically addressed or included within the development of the fire safety strategy.

Fire Statement Gateway 1

Site Address	40 Bernard Street
Site Address Line 2	London
Town	
County	
Site Postcode (optional)	WC1N 1LE
Description of Development	The site comprises an existing office building which is undergoing refurbishment to the cores and fifth floor as well as a new extension to create a sixth floor.
Author's Details	**Richard Jones - BA (Hons), Grad.Dip, AIFireE.** Richard is an Associate with the Institution of Fire Engineers with over 15 years experience in building control and a year working in fire consultancy. Richard has had significant previous experience in Building Control having worked within multiple sectors, including; residential (including HRRB), commercial, industrial, educational, retail, MOJ, MOD and medical facilities at all design/construction stages from feasibility through to handover. Since switching to fire consultancy work in 2022 he has provided consultancy advice for compliance with HRRBs, Gateway 1 reports, risk assessments, fire strategy mark-ups and reports for various sectors.
Signature	
Approver's Details	**Paul Currie BEng, PhD, CEng, MIFireE.** Chartered Engineer (CEng registrant via Institution of Fire Engineers - IFE) and Member of the IFE, with over 25 years postgraduate experience in the field of fire safety engineering, encompassing; design consultancy, risk assessment, structural and fire testing, CFD modelling, research and lecturing. Consultancy projects have included a number of private, public and commercial buildings including educational developments, healthcare facilities, residential developments, offices, warehouses, shopping centres, sports grounds, and car parks. Lecturing experience includes teaching fire safety and fire engineering topics at the University of Central Lancashire and the School of Continuing and Professional Education (SCOPE) at the City University of Hong Kong.
Details of consultations undertaken relating to the fire safety of the development.	Currently consultation with Building Control and Fire and Rescue service has not been undertaken.

Site Layout Plan With Block Numbering. **[Attach - Consistent with other plans drawings submitted in connection with the application]**	 Figure 1: Overview of Site

The Principles, Concepts and Approach Relating to Fire Safety That Have Been Applied to the Development

Building Schedule

Site Information				Building Information			Resident Safety Information		
Block Number	**Block Height (m)** **No. Storeys Above Ground** **No. of storeys including below ground level**	**Proposed Use**	**Location of Separate uses Within Block**	**Standards Relating to Fire Strategy**	**Balconies**	**External Wall Systems**	**Evacuation Approach**	**Automatic Water Fire Suppression System (AWFSS)**	**Accessible Housing Provided**
40 Bernard	Circa 23.4m (Level 09). Basement plus eight from ground floor including mezzanine between ground and first.	Existing basement car park and commercial units on the ground floor with offices above.	Existing basement car park. Two existing ground floor commercial units with mezzanines. Existing Offices from first to fifth floor with new sixth floor office extension.	ADB Volume 2 2019 incorporating 2020 and 2022 amendments. BS9999 2017 for details of the firefighting shaft.	No	'As Built' strategy does not confirm existing wall build up but states insulation products etc. should be of limited combustibility e.g. Class A2-s1, d2 or better and external surfaces should be B-s3, d2 or better for surface spread of flame. New extension: • A2-s1, d0 or better for the insulation products etc. • External surfaces B-s3, d2 or better for surface spread of flame.	Simultaneous.	No AWFSS provided.	N/A

Specific Technical Complexities Specific technical complexities in terms of fire safety e.g., green walls and / or departures from information schedule above	The building is not a relevant building as it does not contain any dwellings, however, a fire statement is required as part of the London Plan. The existing building is provided with an 'As-Built' fire strategy. This was provided by Nadim Choudhary CEng, Meng, FIMechE, MIFireE, MCIBSE dated 23/12/22. Reference will be made to the 'As-Built' fire strategy throughout this report. As per the 'As-Built' fire strategy, the proposed evacuation process in the Helios fire strategy for the sixth floor extension and the core and fifth floor refurbishment, is simultaneous evacuation. The existing fifth floor is over 18m in height and the new sixth floor will take the top floor height to over 23m. It is noted that the existing building, although over 18m does not include firefighting shafts. It is proposed to renovate two of the existing stair cores into firefighting shafts. These will be the south and north-east cores. This will include replacing two existing lifts with firefighting lifts and providing smoke control. Both of these cores will also have dry risers. The north-east core lift will be upgraded to a firefighting lift, however, it will not be able to meet the full size requirements of a firefighting lift as it is constrained by the existing site. Whilst the London Plan advocates the provision of evacuation lifts, the addition of new lift cores is not feasible. In this instance, two existing lifts are to be upgraded to firefighting lifts. As per Annex G of BS9999:2017, in some cases firefighting lifts can be used for evacuation purposes under management control before the fire service arrive. Currently there are no evacuation lifts or firefighting lifts provided. It is considered that upgrading the lifts to firefighting lifts (which can also be used as evacuation lifts) provides a greater benefit than upgrading them to evacuation lifts. This is a significant improvement over existing arrangements and due to the constraints of the existing building Helios believe this should be acceptable. The fifth and sixth floors will be constructed as compartment floors. The 'As Built' fire strategy does not show compartment floors to the existing building other than separating the basement from the ground floor. The external wall construction for the new extension will be:: • A2-s1, d0 or better for the insulation products etc. • External surfaces B-s3, d2 or better for surface spread of flame For more information on the fire strategy principles for the building, see the Helios Stage 2 fire safety strategy and 'As-Built' fire strategy included within the planning application pack. Typical layouts for the fifth and sixth floors are provided below.

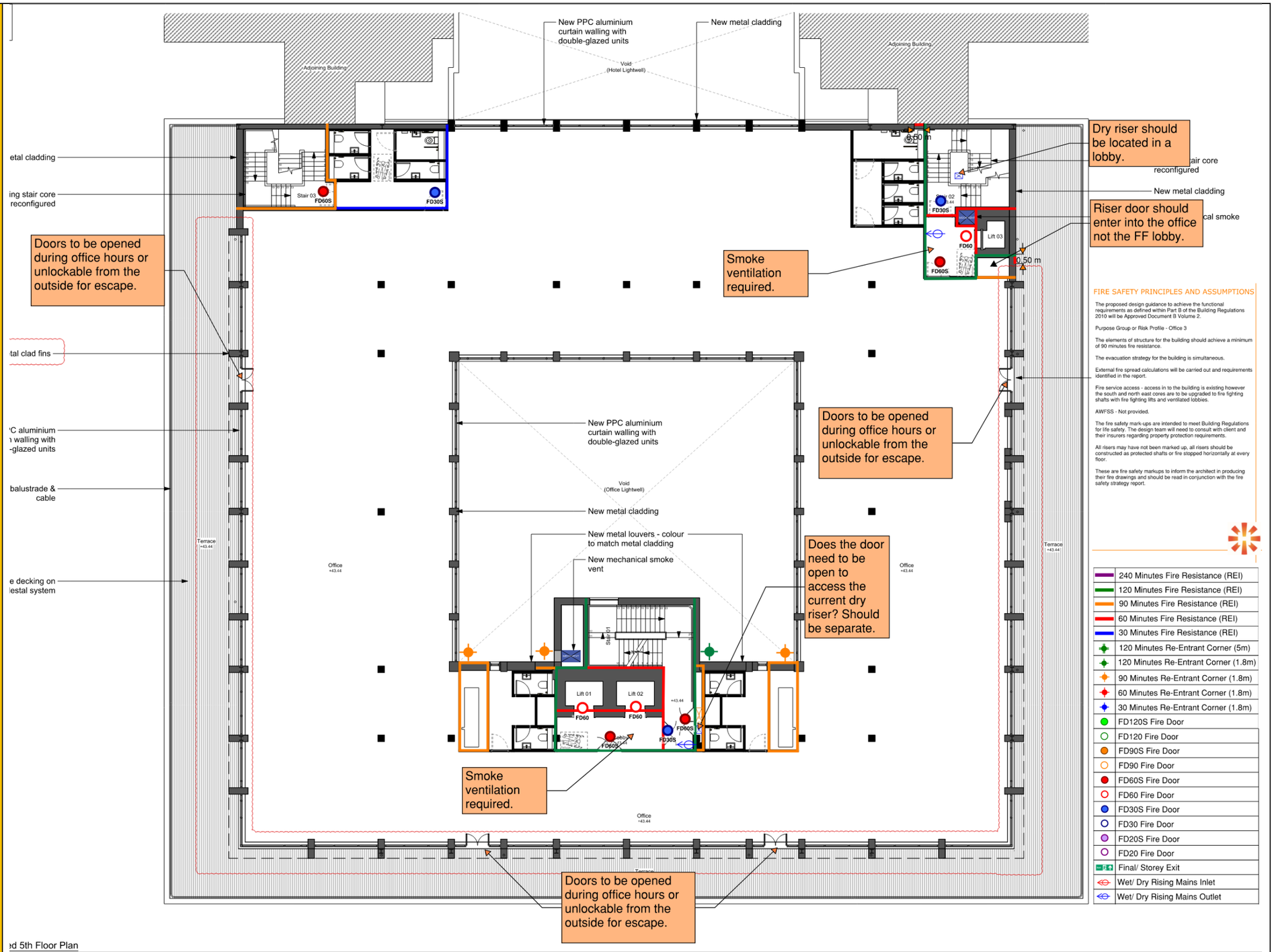


Figure 2: Fifth Floor

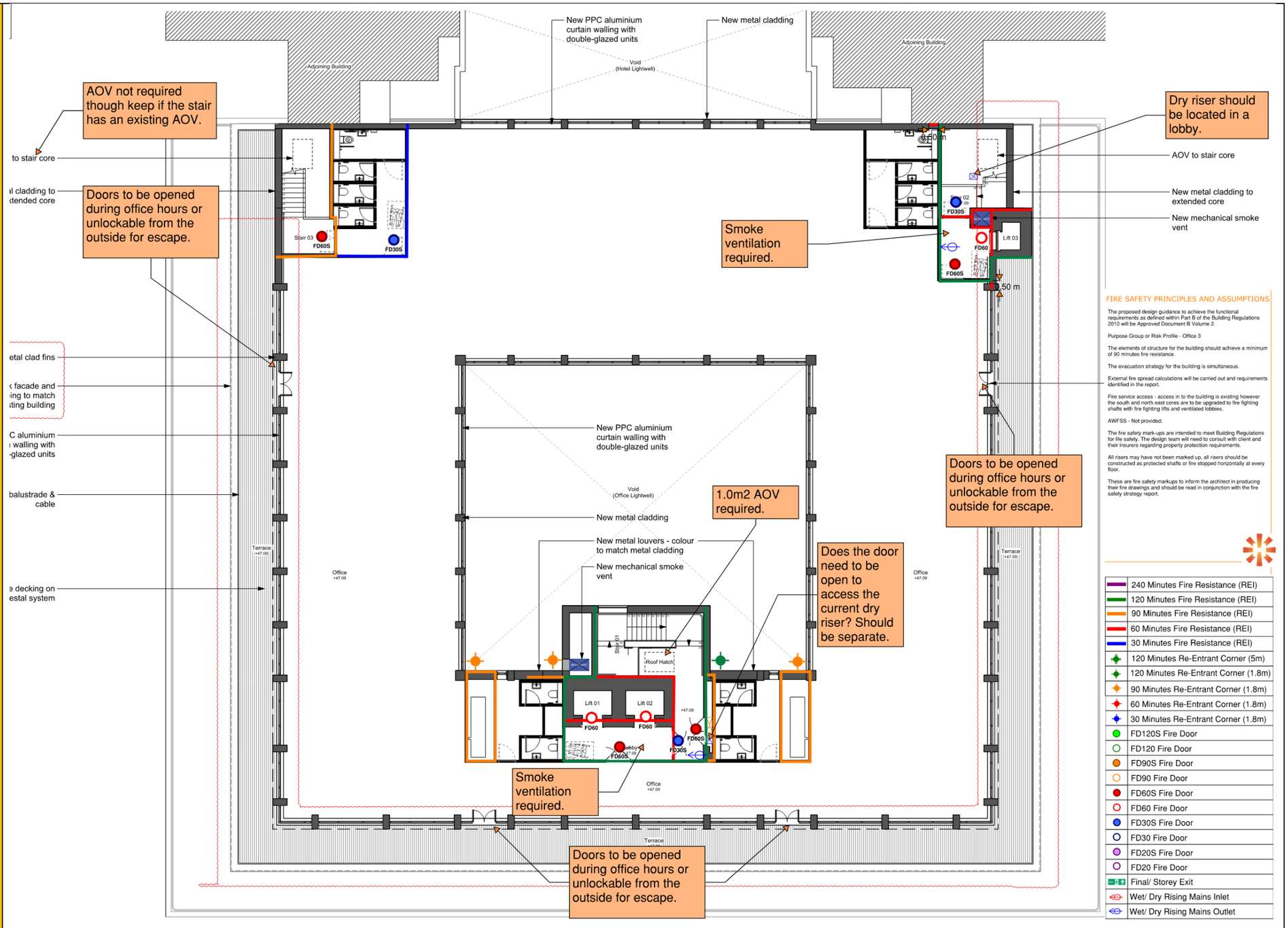


Figure 3: Sixth Floor

Issues Which Might Affect the Fire Safety of the Development Explain how any issues which might affect the fire safety of the development have been addressed.	The existing fifth floor is over 18m in height and the new sixth floor will take the top floor height to over 23m. It is noted that the existing building, although over 18m does not include firefighting shafts. It is proposed to renovate two of the existing stair cores into firefighting shafts. These will be the south and north-east cores. This will include replacing two existing lifts with firefighting lifts and providing smoke control. Both of these cores will also have dry risers. The north-east core lift will be upgraded to a firefighting lift, however, it will not be able to meet the full size requirements of a firefighting lift as it is constrained by the existing site. Whilst the London Plan advocates the provision of evacuation lifts, the addition of new lift cores is not feasible. In this instance, two existing lifts are to be upgraded to firefighting lifts. As per Annex G of BS9999:2017, in some cases firefighting lifts can be used for evacuation purposes under management control before the fire service arrive. Currently there are no evacuation lifts or firefighting lifts provided. It is considered that upgrading the lifts to firefighting lifts (which can also be used as evacuation lifts) provides a greater benefit than upgrading them to evacuation lifts. This is a significant improvement over existing arrangements and due to the constraints of the existing building Helios believe this should be acceptable. The 'As-Built' fire strategy includes that based on the height the building it should be provided with 90 minutes structural fire resistance. It is recommended that the existing structural fire resistance is formally assessed. The fifth and sixth floors will be constructed as compartment floors with 90 minutes fire resistance and all new structural works should achieve 90 minutes fire resistance. The elevations for 5th and 6th floor have been assessed and the design team have been informed of the fire resistance requirements based on boundary distances. This is covered within the associated fire strategy reports.
Local Development Plan Policies – Fire Safety	Whilst the London Plan advocates the provision of evacuation lifts, the addition of new lift cores is not feasible. In this instance, two existing lifts are to be upgraded to firefighting lifts. As per Annex G of BS9999:2017, in some cases firefighting lifts can be used for evacuation purposes under management control before the fire service arrive. Currently there are no evacuation lifts or firefighting lifts provided. It is considered that upgrading the lifts to firefighting lifts (which can also be used as evacuation lifts) provides a greater benefit than upgrading them to evacuation lifts. This is a significant improvement over existing arrangements and due to the constraints of the existing building Helios believe this should be acceptable.

Emergency Road Vehicle Access and Water Supplies for Firefighting Purposes

Fire Service Site Plan
Explanation of fire service site plan(s) [Attach]
Guidance documents have informed the proposed arrangements for fire service access and facilities.

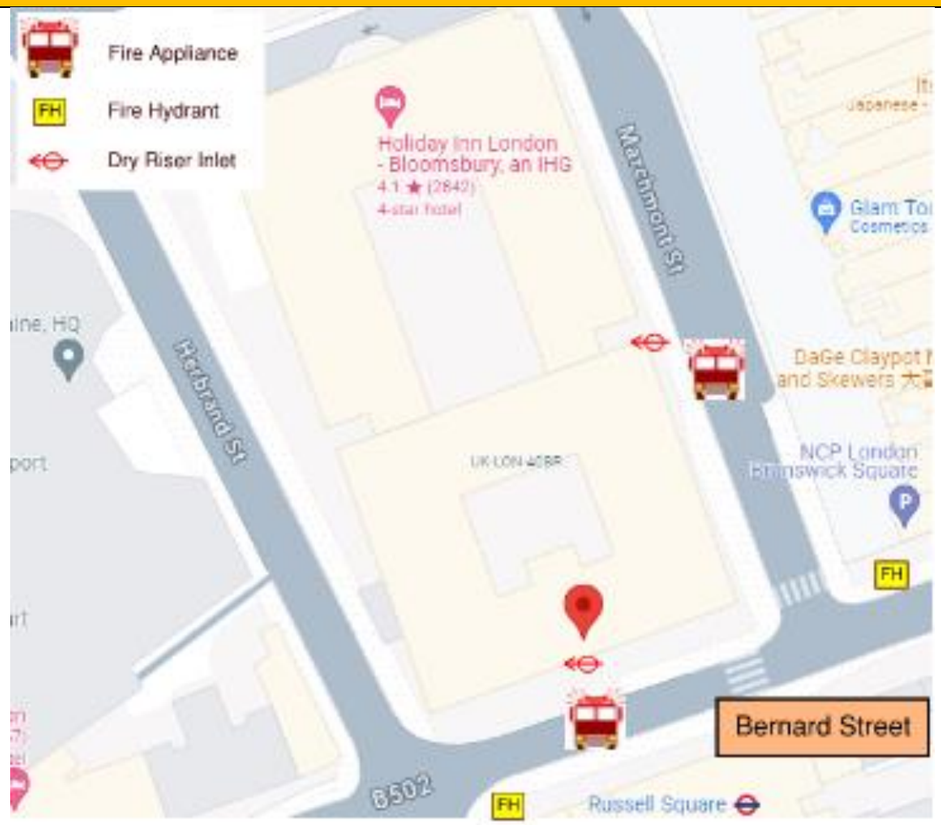
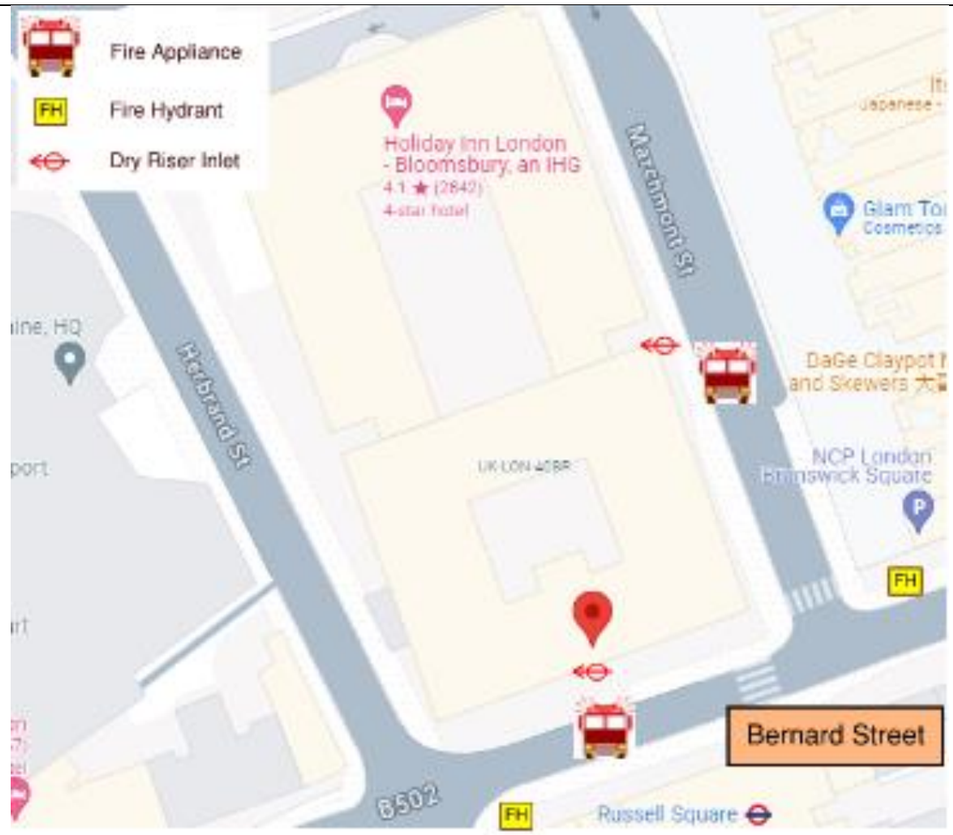


Figure 4: Fire Service Access

Indicative fire service access arrangements are shown in the figure above. There is existing access off Bernard Street and Marchmont Street.

The proposed fire service access to the commercial units is via hose distances from the appliance. The rest of the offices have facilities for internal firefighting, e.g. firefighting shafts, dry riser outlets and hose distances are within 60m.

Emergency Road Vehicle Access Specify emergency road vehicle access to the site entrances indicated on the site plan.	 **Figure 5: Fire Service Access** Indicative fire service access arrangements are shown in the figure above. There is existing access off Bernard Street and Marchmont Street. The proposed fire service access to the commercial units is via hose distances from the appliance. The rest of the offices have facilities for internal firefighting, e.g. firefighting shafts, dry riser outlets and hose distances are within 60m.				
Is the emergency vehicle tracking route within the site to the siting points for appliances clear and unobstructed?	**Yes**		**~~No~~**		
Siting of Fire Appliances Guide: no more than 200 words	Please see sections above and below and the Stage 2 fire strategy for further information on provisions for the fire service.				
Suitability of Water Supply for the Scale of Development Proposed	For buildings provided with dry rising mains, hydrants should be provided within 90 metres of dry fire main inlets and not more than 90 metres apart. For areas of the building where hose distances are proposed, the hydrant should within 90m of the entry point of the building. Existing Fire Hydrants (FH) have been identified and noted on the fire service access drawing. The hydrants are within 90m of the dry fire main inlets or entry points of the building. It should also be noted as the hydrants are existing and should therefore be maintained in working order by the water authority in accordance with the Water Industry Act 1991, Section 57.				
Nature of water supply:	**~~Open Water – Limited~~**	**~~Open Water Unlimited~~**	**Hydrant Public**	**~~Hydrant Private~~**	**~~Tanked Supply~~**
Does the proposed development rely on existing hydrants and if so, are they currently usable / operable?	**Yes**		**~~No~~**	**~~Don't Know~~**	
Fire Service Site Plan	**~~Attached~~**		**Inserted Below**		

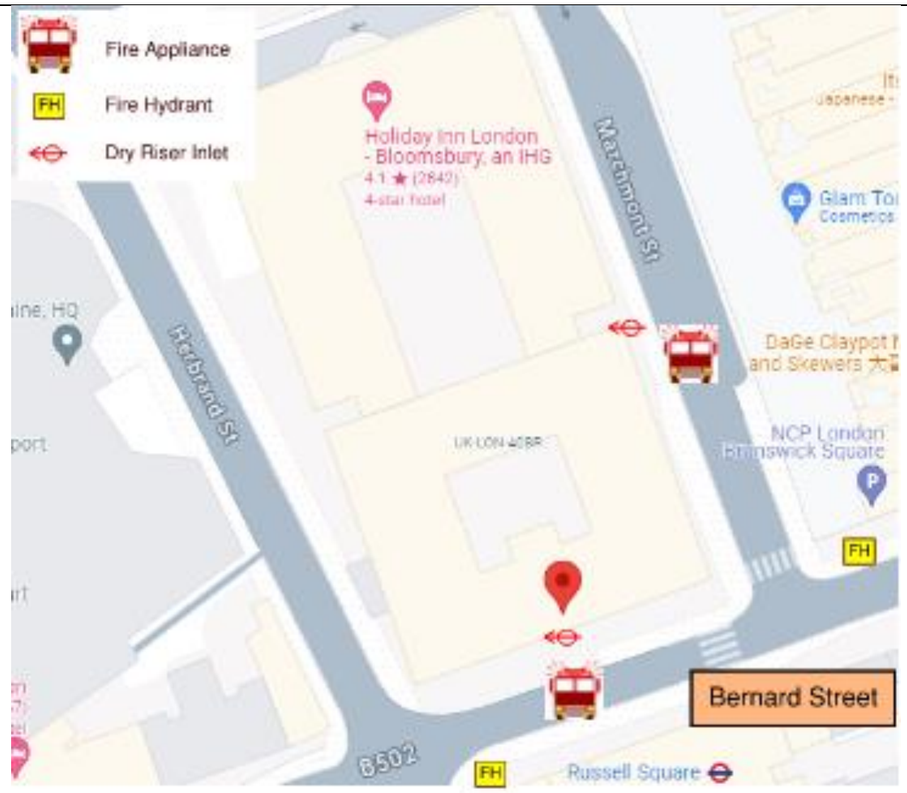


Figure 6: Site Plan

The figure above shows the fire service access to the buildings including indicative location of dry riser inlets. Further information is available in the Stage 2 fire strategy.

The location of assembly points should be determined by the site management team forming part of their fire risk assessment and fire safety management plan. The locations should take account of their management structure, resources, and local restrictions and if they have a current policy to adhere to. This should include:

- The locations should not be located where they may obstruct fire service operational personnel or their access to the development.
- They should be located a suitable distance from the building being evacuated.
- They should be suitably sized for the number of people who will need to use them.
- Consideration of how the evacuation process will be managed including communication method with people at assembly points.

There is potential for assembly points on site in different areas depending on the building evacuating, however, the management team are responsible for ensuring suitable locations are selected for the building.