London School of Hygiene and Tropical Medicine I

Phase 3 Internal Fire Strategy | Design and Access Statement

951 | Revision A | 11.10.23

LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

Burwell Architects

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Contents

1.0 Introduction

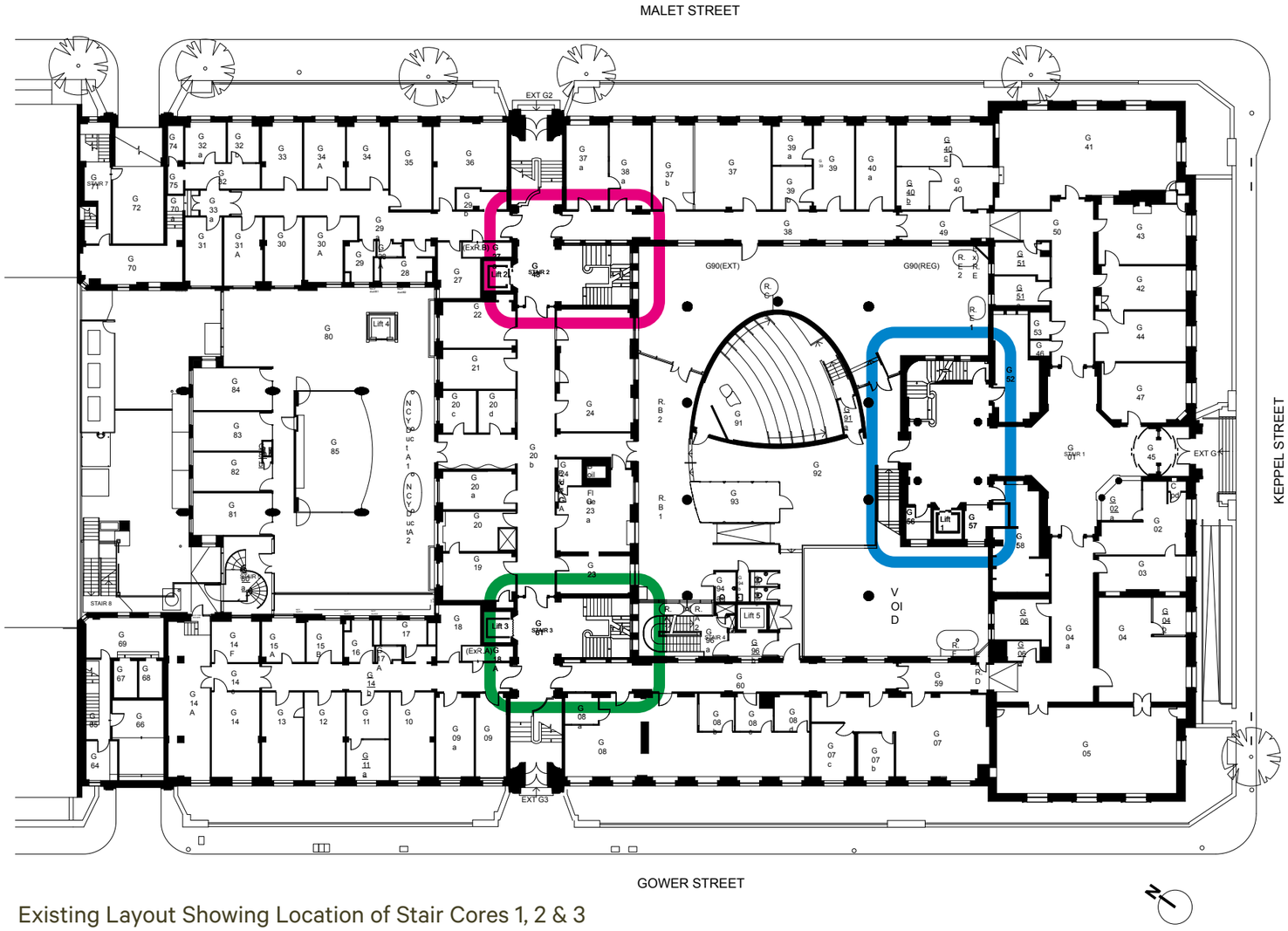
The London school of Hygiene and Tropical Medicine is a world-leading centre for research and postgraduate education in public and global research. Its Keppel Street Building is a purpose designed facility built between 1926 and 1929 (with various modifications and extensions over the years). The building is recognised as significant in the development of classicism in twentieth century British architecture. and is Grade II listed. However, many of the doors and windows on its primary fire escape stair cores and circulation routes do not meet current fire requirements. In addition, many of the existing doors do not meet modern accessibility standards – particularly with regard to access for wheelchair users.

Burwell Architects have been appointed to review how the existing doors and windows can be refurbished to improve fire safety and accessibility in a way that is as sympathetic as possible to and minimises heritage impact on the existing original fabric.

1.1 Purpose of Document

This document has been prepared following a meeting on site 05.10.23 with Senior Planner Rose Todd. During the meeting, a set of principles were agreed, which would enable the existing doors and windows to be refurbished in terms of fire performance and accessibility in a way that safeguards the existing heritage asset.

The purpose of this document is to describe the approach to the proposed refurbishment works within the context of the existing listed building. It is intended to be read with the associated drawings and survey documents, which also form part of this application.



Existing Layout Showing Location of Stair Cores 1, 2 & 3

Existing Stair Core 1

Existing Stair Core 2

Existing Stair Core 3

1.2 Proposed Refurbishment Strategy

In order to protect the heritage asset, the proposed refurbishment strategy for the doors and windows is based on the following overarching principles:

- The general appearance and details of the original doors and windows are to be maintained as far as possible
- As much of the extant original fabric is to be retained as possible
- Where possible, any works to the original fabric should be reversible.

A detailed set of principles is described on the following pages.

2.0 Doors

2.1 Existing Doors

The existing doors, which form part of the stair core enclosures and the adjacent circulation spaces, are of hardwood and Georgian wired glass construction.

Over the years, many of the doors have been subject to upgrading and adaptation works. This has included (but is not limited to) the incorporation of new door furniture and the application of wood stains and paint finishes. At Lower Ground Floor, protective metal panels have been added to some of the doors. In some cases, the original chrome door handles have been lost.

In addtion, the condition of the doors varies across the building, and many of the doors suffer from general deterioration due to wear and tear including: chipped and worn woodwork; misalignment of the door leaves (resulting in gaps between the door leaves and frames); and, in some cases, bowing. Many of the doors are missing fire and smoke seals.

The doors do not currently meet fire and accessibility requirements.

Door 3.2, As Existing

2.0 Doors

2.1 Existing Doors

Door 2.3, As Existing

Gap between stile and panel

Scuffing to finish through wear and tear

Existing door severely misaligned in closed position

Door 1.6, As Existing

2.0 Doors

2.1 Existing Doors

Door LG.4, As Existing

Door 2.2, As Existing

2.2 Proposed Refurbishment

The proposed strategy for the doors has the following key objectives:

- To enable the doors to be repaired and enhanced to improve fire performance
- To improve accessibility along primary circulation routes, including for wheelchair users
- To achieve greater consistency across the doors in terms of their condition, performance (and appearance, where this is appropriate)
- To safeguard the heritage asset.

It is intended that the doors are assesed on a case-by-case basis in terms of their condition and requirements, and that the appropriate repairs and refurbishments are undertaken following the principles described below.

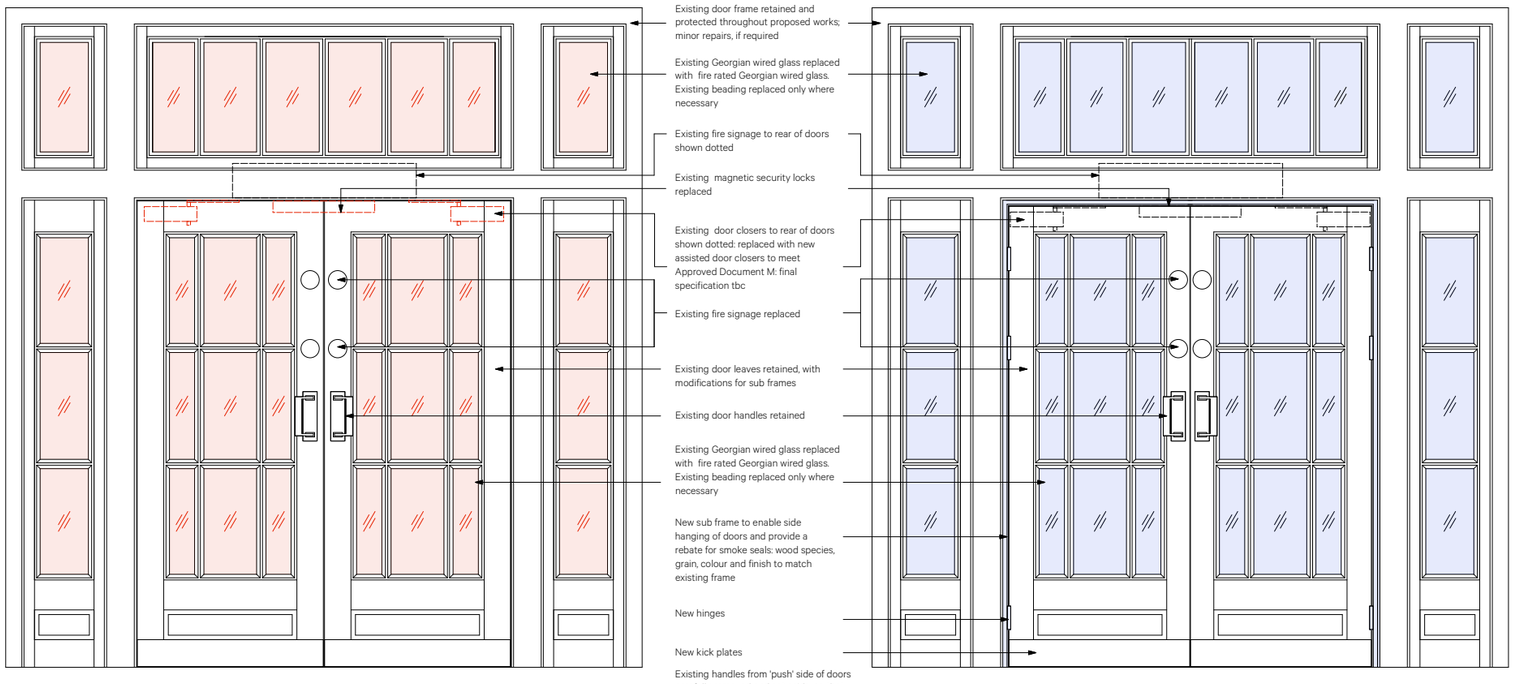
Proposed Principles of Refurbishment

- Existing door leaves and frames are to be retained, and to be repaired or refurbished where necessary
- Georgian wired glass is to be replaced with fire rated amd impact resistant Georgian wired glass; existing beading is to be replaced only where necessary
- Existing door pivots are to be removed and doors are to be side hung with new hinges to enable continuous fire and smoke seals to be fitted
- New sub frames are to be incorporated to enable side hanging of the doors, to provide a rebate for the smoke seals, and in some cases to provide strengthening for the side hanging of the doors. The wood for the subframes is to be selected to match the existing in terms of species, colour and grain
- Existing floor boxes and cover plates, though obselete, are to remain in situ
- Existing door closers are to be replaced, where necessary
- Automatic openers with push pads are to be provided where required to meet accessibility requirements
- New fire and smoke seals to are to be incorporated. Where it is necessary to use plant-on smoke seals and intumescent strips, these will be specified to colour match the door as closely as possible
- Warped or bowing doors are to be assessed on a case-by-case basis and are to be straightened, realigned and / or repaired in a manner which retains as much of the original door as possible
- Any additional lippings required to close excessive gaps are to match the existing door profile
- Existing stain and paint to the doors and frames will be removed back to the original natural wood finish; to be tested on a hidden area before undertaking the works
- Any wood required for repairs or refurbishment is to be selected to match the existing in terms of species, grain and colour
- Existing original chrome door handles are to be retained or reused. For doors with pull handles to both sides, the existing door handles from the ‘push’ side of the door will be carefully removed so that the doors open safely in the direction of fire escape only, and replaced with a push plate. The obsolete pull handles will be retained by the School for use on doors where the original door handles are missing
- The existing fire signage is to be replaced where required. Existing fire exit signage, where it exists on the doors, is to be retained in the short term (with the possibility that there may be an opportunity to replace it with ceiling-hung P4 fire exit signage in the future)
- Existing security magnetic locks - where these exist - are to be retained or replaced.
- New fixings (for maglocs, door closers etc) are to be designed to be fully reverible, if possible
- Consideration will be given to the use of intumescent varnish to enhance the fire rating of the doors
- Consideration is to be given to the replacement of non-original doors with those that match the original door design, where this is possible and appropriate.

It is proposed that one of the doors is selected for repair and refurbishment in the first instance, to test and provide a benchmark for what is achievable. Using a specialist joiner, this door will be assessed and refurbished following the principles outlined in this document.

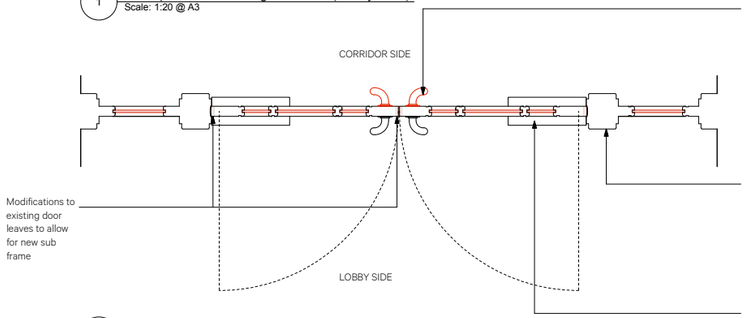
EXISTING

PROPOSED

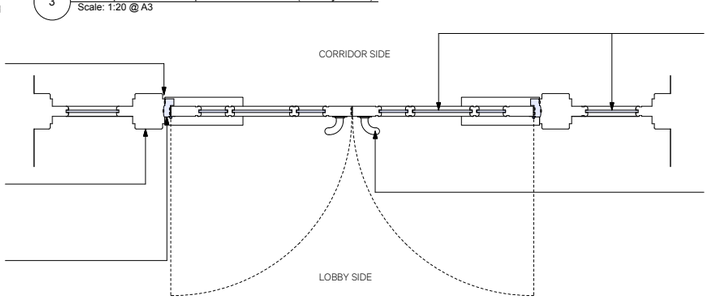


1 Example Door: Existing Elevation (Lobby Side)
Scale: 1:20 @ A3

3 Example Door: Proposed Elevation (Lobby Side)
Scale: 1:20 @ A3



2 Example Door: Existing Plan
Scale: 1:20 @ A3



4 Example Door:Proposed Plan
Scale: 1:20 @ A3

Existing removed

New

Final details subject to fire testing by specialist joiner / door manufacturer

Revision	Date	Amendment
A	01.11.23	Planning Issue

Notes

0 1 2 3 4 5M

Client	London School of Hygiene & Tropical Medicine
Project	Phase 3 Internal Fire Strategy
Drawing	Example Heritage Door: Existing and Proposed
Scale	1:10 @ A1 / 1:20 @ A3
Drawn	CR
Date	October 2023
Project N°	951
Drawing N°	951/PL/135
Revision	A

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3.0 Windows

3.1 Window Types

The existing windows which form part of the proposed works are of two types:

Type 1: Windows located in Stair Cores 1 and 2 overlooking the building's south atrium (originally a courtyard).

The windows on Stair Core 1 are single-glazed, metal-framed windows (possibly original). The windows on Stair Core 2 are largely double-glazed composite windows.

Type 2: Windows located in Stair Cores 2 and 3 between the stair core and adjacent corridors.

These windows are Georgian wired glass set within existing hardwood frames.

Window Type 1

Window Type 2

3.2 Window Type 1: Proposed Design

Originally, the windows on the north and north-east elevations of Stair Core 1 and the south-east elevation of Stair Core 2, faced onto external space. The external space was transformed into an internal atrium in 2009.

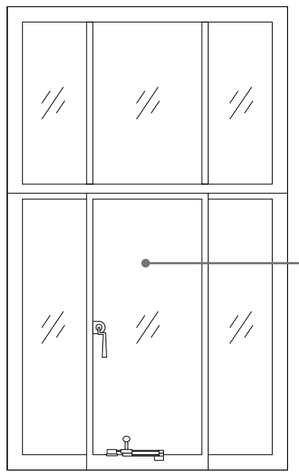
In order to provide a fire rated compartment between the Stair Cores and the adjacent atrium, it is proposed that the existing windows on the north and north-east elevations of Stair Core 1 and the south-east elevation of Stair Core 2 are provided with fire-rated secondary glazing.

The existing windows will be retained in-situ and secured closed, with new metal-framed fire-rated secondary glazing inserted within the window reveal on the stair core side. This methodology would enable a full reversal of the works at a later date, if so required, with minimal impact to the existing fabric.

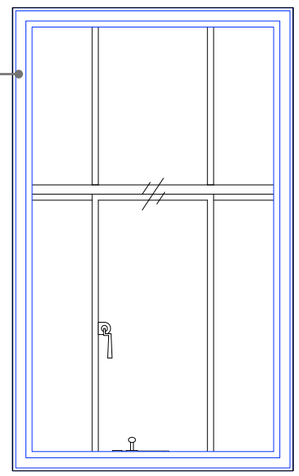
The fire-rated secondary glazing will be selected to provide the slimmest visible section possible, in keeping with the original windows.

It should be noted that there is already fire rated glazing to the windows on the south-east elevation of Stair Core 3 between the adjacent atrium and the stair core itself.

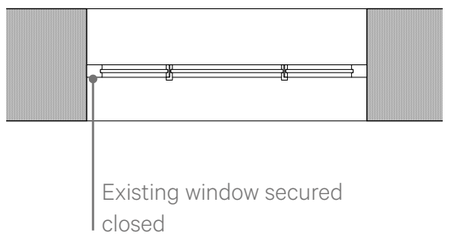
Existing Elevation



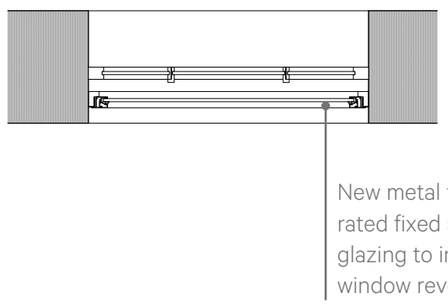
Proposed Elevation



Existing Plan



Proposed Plan

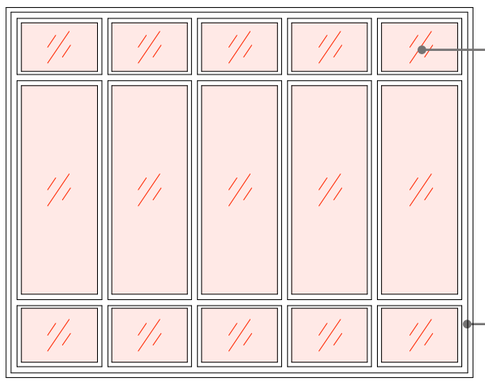


3.3 Window Type 2: Proposed Design

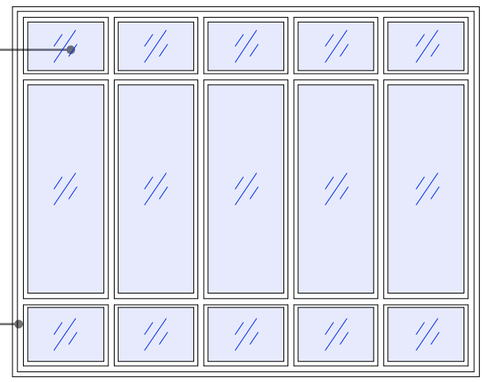
It is proposed that the Type 2 windows - the Georgian wired glass panes between the stair and adjacent corridors on Stair Cores 2 and 3 - are replaced with fire-rated impact resistant Georgian wired glazing. The existing hardwood frames will be retained and protected throughout the works, although new beading (to match the existing) might be required. This will be assessed by a specialist joiner and will be limited to only where strictly necessary.

Any staining or tinted lacquers to the existing hardwood frames will be carefully removed to a more natural finish to match the adjacent doors.

Existing Elevation



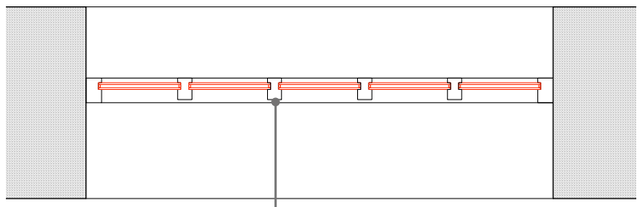
Proposed Elevation



Existing Georgian wired glazing carefully removed and replaced with new fire rated Georgian wired glazing

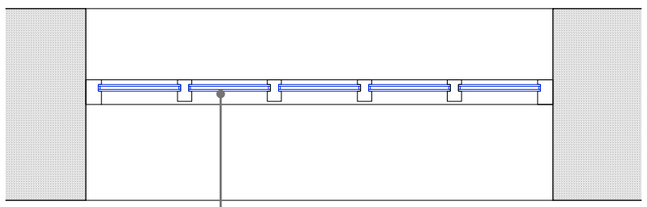
Existing hardwood frame retained

Existing Plan



Existing hardwood frame retained. beading replaced only where necessary

Proposed Plan



Existing Georgian wired glazing carefully removed and replaced with new fire rated Georgian wired glazing

4.0 Heritage Statement

4.1 Introduction

This Heritage Statement has been prepared in support of the Listed Building Consent application submitted to the London Borough of Camden. The application relates to refurbishment works to some of the existing internal doors and windows on Escape Stair Cores 1 - 3 and the adjacent circulation corridors of the London School of Hygiene and Tropical Medicine's main building on Keppel Street.

The building was Grade II listed in March, 1982 and is located within the Bloomsbury Conservation Area within the London Borough of Camden.

4.2 The Heritage Asset and its Significance

4.2.1 Brief History of The London School of Hygiene and Tropical Medicine and Keppel Street Building

The London School of Hygiene and Tropical Medicine was established in 1924, growing out of the London School of Tropical Medicine which had been set up in 1899 by Sir Patrick Manson. Today, the School is a world-leading centre for research and postgraduate education in public and global health, one of the highest-rated research institutions in the UK, and has previously been ranked as one of the world's top universities for collaborative research, with its research programmes extending across the world.

The main building of the school is a purpose designed facility located in Keppel Street in Bloomsbury. It was built between 1926 and 1929 following an architectural competition won by Percy Morley Horder with the likely assistance of Verner O Rees.

The creation of the London School of Hygiene and Tropical Medicine and the design of the Keppel Street building were two aspects of a single process and this link between the institution and its building continues today. In addition to laboratories, technical facilities, teaching spaces and offices, the building also contains grander spaces – such as the library and entrance circulation – which were designed to reflect the international eminence of the School within its field. Both the location of the building at the heart of Bloomsbury and the building itself, are key aspects of the School's identity and help it to attract students, researchers and funding from all over the world. Maintaining the character of the building into the future is therefore a key issue for the School's corporate direction.

4.2.2 Conservation Management Plan

A comprehensive Conservation Management Plan was produced for the London School of Hygiene and Tropical Medicine by Richard Griffiths Architects in 2013. The overall aim in commissioning the Plan was to help retain the significance of the heritage asset in any management, repair, alteration or new development projects.

The Conservation Management Plan consists of two parts. The first part contains a detailed history of the School and its building, followed by an assessment of its architectural and historical significance, summarised as a Statement of Significance and supported by a room by room gazetteer as well as 'significance plans' which show the level of significance and sensitivity attributed to the fabric and spaces. Significance has been assessed in terms of historical, evidential and aesthetic values and also the communal values people hold for the School.

The second part of the Conservation Management Plan is designed to summarise the risks and opportunities for the building, both now and in the future. Along with the Statement of Significance, these serve to inform the Conservation Policies for the building, which will help to provide a framework for decision-making and for the evaluation of proposals affecting the significance of the building.

4.2.3 Assessment of Significance

The Conservation Management Plan sets out an understanding of the significance of the heritage asset, based on Conservation Policy guidance. The heritage significance of the London School of Hygiene and Tropical Medicine Keppel Street building is described in terms of both 'architectural' and 'historical' significance, and both at the level of the building as a whole and at the level of its constituent parts. The significance of the building as a whole is described within the Conservation Management Plan as follows:

4.2.4 Overall Building Significance

Architectural significance

1. The LSHTM building is significant in the development of classicism in twentieth century British architecture, for the following reasons:

- *It uses a highly simplified repertoire of classical details compared with the "Edwardian Baroque" version of classicism that was characteristic of commercial and institutional building in the first two decades of the twentieth century. The presentation of abstract forms takes precedence over decorative elaboration of the elements of the building.*
- *The move towards abstracted versions of classicism is associated with the work of Edwin Lutyens in the early twentieth century. Verner Rees had worked with Lutyens and would have had direct personal knowledge of the design philosophy that lay behind Lutyens' work.*
- *Abstracted monumental classical forms are also characteristic of many of the memorials built after the first world war. Rees had used such forms for the Soissons war memorial and in the LSHTM building he developed them further.*
- *Rees (according to the testimony of John Brandon-Jones) appears to have had an interest in the use of "the golden section". This was an aspect of the neoclassical revival of the early 1920s, which was of international importance.*
- *The building may have influenced Charles Holden in the development of the style of stripped classicism that he employed at London University Senate House.*

2. The building contains laboratories, technical facilities, teaching spaces and offices, as would be expected for a major academic building. However it also contains grand spaces (including the library, board room, director's suite and staff common room) which reflect the fact that LSHTM was an international institution eminent in its field, and which express its pride and confidence.

3. The interior of the building provides an extremely coherent and well-preserved example of the hierarchies of detail and decoration that were characteristic of public buildings in the 1920s. For example:

- *Stone and terrazzo are used in a hierarchy extending throughout the walls and floors of the building and notably in the stairs.*
- *Ebonised hardwood and plain oak are used in a hierarchy of joinery for doors, panelling etc.*
- *Geometrical patterns are highly developed in the library gallery and employed in simpler forms elsewhere in the building, for example on stair balustrades.*

A range of chromium ironmongery is used consistently throughout the building.

4. The building contains a unique range of sculptural and decorative iconography, highly significant in British architecture of the period. For example;

- *The inscription of names of scientists on the façade follows a tradition of celebrating famous precursors. However the work of Allan Howes, with its blocky forms and sans-serif lettering, is a distinctive modern interpretation of this form of commemoration.*

- *The controversy over Eric Kennington's sculpture for the entrance is an example of the clash of taste between avant- garde sculptors and clients that was typical of the early twentieth century in Britain (most notably in the work of Jacob Epstein).*

- *The gold-painted decorative creatures on the balconies are an example of the use of sculpture to identify the use and significance of the building. In the early years of the twentieth century there are other significant examples of the use of animal sculptures and effigies in public debate and controversy, and the LSHTM examples may form part of this trend.*

Historical significance

1. The building is evidence of the reform of medical education following the appointment of the Athlone Committee of 1921. It provided a unified centre for the teaching and study of public health at a time when other aspects of medical education remained in the traditional centres of the teaching hospitals.

2. The building is evidence of the continuing importance of Britain's colonial territories in the post first world war period. The bringing together of public health and tropical medicine reflects the range of activities in which the British government had a direct interest.

3. The building is an important example of the work of the Rockefeller Foundation in promoting the concept of "global public health". It is also an example of the Foundation's wider involvement in academic funding in Britain, for example at the University College Anatomy Building (1923) and Senate House (1928).

4.2.5 Significance of The Existing Doors and Windows

The existing doors and windows associated with this Listed Building Consent application, form part of Stair Cores 1, 2 and 3 and the adjacent circulation corridors. The stair cores are noted within the School's Conservation Management Plan as being *'highly significant',* with *'highly significant'* defined as *'where the 1929 fabric is wholly or largely intact. Such areas should be conserved and original features repaired or replaced to match as closely as possible.'*

The walls in which some of the windows are located are categorized within the Conservation Management Plan gazetteer as being *'Significant.'* The Conservation Management Plan goes on to define *'significant'* spaces as those *'where some elements of the 1929 fabric are intact. In such areas original elements should be conserved and repaired wherever possible.*

The circlation corridors in which some of the doors are located are categorized within the Conservation Management Plan as being both *'significant'* and *'highly significant'.*

It should be noted that door D.4.1, to be refurbished at fourth floor, sits apart from Stair Core 1, located in an area defined within the School's Conservation Management Plan as being *'neutral',* with *'neutral'* defined as *'"those [areas] where no elements of 1929 fabric remain.'*

Within the Conservation and Management Plan gazetteer, the stair cores are noted as follows:

'Original details and finishes remain.'

Many of the features of the stair cores - such as the original terrazzo flooring and skirting and the metalwork forming the stair balustrades and handrails - can be seen to be original.

Doors

Whilst modified over the years to meet the School's evolving requirements, many of the existing internal doors are largely original and retain their original chromium door handles and their - both simple and elaborate - hardwood surrounds.

Windows

The windows on Stair Cores 1 and 2, facing into the adjacent atrium space (Window Type 1) are a mixture of single-glazed metal-framed - and possibly original - windows (Stair Core 1) and modern UPVC and double-glazed windows (Stair Core 2).

The Georgian wired glass window panes in hardwood surrounds between Stair Cores 2 and 3 and the adjacent corridors (Window Type 2) form part of the original building fabric, as noted in the Conservation Management Plan.

4.3 Assessment of The proposals and Their Impact on the Heritage Asset

4.3.1 Key Objectives of The Proposed Refurbishment of The Internal Windows and Doors

As noted in the introduction to this document, the existing doors and windows form part of the fire enclosure to the building's three primary fire escape cores, along with the adjacent circulation corridors. However, the doors and windows in their current state do not meet current requirements in terms of their ability to provide a fire-rated enclosure and protected means of escape. In addition, the doors do not meet current accessibility regulations, including for wheelchair users.

A key objective of the proposed works is therefore to refurbish the doors and windows to improve fire safety to the enclosed escape cores and circulation corridors and, in the case of the doors, to enable wheelchair access from the adjacent accommodation to the lifts located within the stair cores.

4.3.2 Proposed Works

The design proposals seek to ensure that the doors and windows are refurbished to improve fire safety and wheelchair access in a way that is as sympathetic as possible to, and retains as much as possible of, the extant original fabric of the heritage asset.

Doors

The doors are to be assessed on a case-by-case basis in terms of their current condition and the repair or maintenance measures required to meet fire and accessibility requirements.

- Within the proposals, as much of the original door fabric is retained as possible. The existing door leaves and frames will be retained, with repairs and / or refurbishment only where necessary
- Existing original chromium door handles are to be retained or reused. For doors with pull handles to both sides, the existing door handles from the 'push' side of the door will be carefully removed so that the doors open safely in the direction of fire escape only, and replaced with a push plate. The obsolete pull handles will be retained by the School for use on doors where the original door handles are missing
- Any wood required for repairs or refurbishment is to be selected to match the existing in terms of species, grain and colour
- Georgian wired glass - where incorporated - will be replaced with fire-rated impact resistant Georgian wired glass
- Fixings are to be designed to be fully reversible, if possible
- Consideration is to be given to the replacement of non-original doors with those that match the original door design, where this is possible and appropriate.

Windows

Type 1: Windows to North and North-East elevation of Stair Core 1 and to South-East elevation of Stair Core 2 overlooking the building's south atrium

The existing windows will be retained in-situ and secured closed, with new fire-rated secondary glazing inserted within the window reveal on the stair core side. This methodology would enable a full reversal of the works at a later date, if so required, with minimal impact to the existing fabric.

The fire-rated secondary glazing will be selected to provide the slimmest visible section possible, in keeping with the original windows.

Type 2: Windows located to North-East elevation of Stair Core 2 and 3 and South-West elevation of Stair Core 3 between the stair core and adjacent corridors.

The existing Georgian wired glass will be replaced with fire-rated Georgian wired glazing, with the hardwood frames retained and protected throughout the proposed works. Replacement beading will be used only where strictly necessary and will match the existing in terms of profile, wood species, colour and grain.

4.4 Assessment of The proposals and Their Impact on the Heritage Asset: Summary

- The doors and windows in their existing state do not meet current fire and accessibility requirements
- The proposed works seek to refurbish the windows and doors to improve fire safety and wheelchair access in a way that is as sympathetic as possible to the existing fabric of the heritage asset
- **The proposed works will retain as much of the existing fabric as possible.** The doors will retain their existing door leaves and frames, and the existing chromium door handles will be carefully removed from the existing door leaves and reused. Existing redundant floorboxes will be retained insitu. The existing windows in Stair Cores 1 and 2 facing into the adjacent atrium (Window Type 1) will be retained in situ, with the fire-rated secondary glazing- which could be removed at a later date if required - inserted on the stair core-side of the windows. The existing hardwood frames to the windows between Stair Cores 2 and 3 and the adjacent corridors (Window Type 2) will be retained and protected throughout the works.
- Any wood required for repairs or refurbishment is to be selected to match the existing in terms of species, grain and colour
- Georgian wired glass - where incorporated - will be replaced with fire-rated impact resistant Georgian wired glass
- Fixings are to be designed to be fully reversible, if possible.
- Consideration is to be given to the replacement of non-original doors with those that match the original door design, where this is possible and appropriate.

5.0 Access Statement

The London School of Hygiene and Tropical Medicine Keppel Street building's entrance incorporates both stepped and ramped access.

Lifts are generally provided throughout the building, including to Stair Cores 1, 2 and 3, serving all floor levels.

The existing doors to Stair Cores 1, 2 and 3 - the building's primary stair cores - and the adjacent circulation corridors, do not meet current accessibility requirements, including for wheelchair users. The design proposals incorporate automatic openers to some of the doors on primary circulation routes to enable wheelchair access, thereby improving accessibility within the building's primary circulation.

Burwell Architects