

1 General

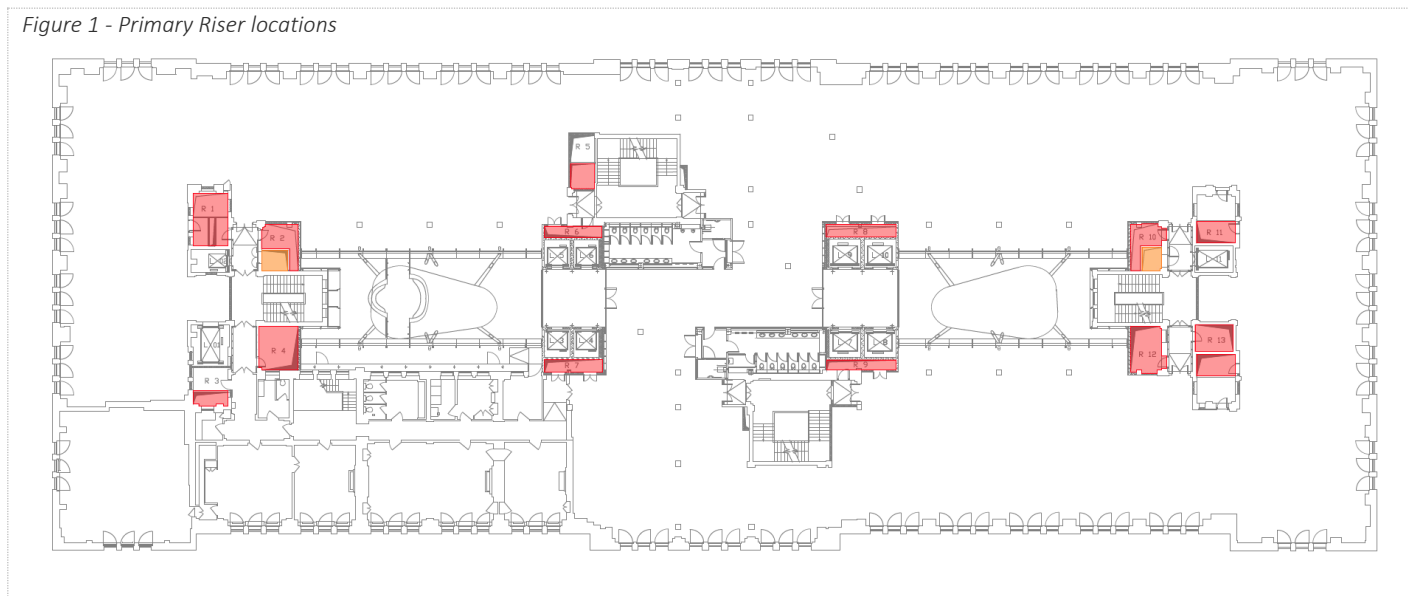
Victoria House is located on Bloomsbury Sq. and was constructed in the 1920s. It has Grade II Listing. It was significantly refurbished in 2001 and is currently operating as a multi-use building with the majority of the space being used for commercial application but with some retail and leisure at ground and lower levels.

The building is arranged over 13 stories comprising 2 basement levels, ground, upper ground, plus floor levels 1-9. Overall accommodation is approximately as follows;

Area Type	Area m ²
Office Accommodation	19,743
Retail	2,479
Event and Leisure Space	4,375

Services plant is mainly located at sub-basement and roof levels with vertical services risers located generally as detailed below;

Figure 1 - Primary Riser locations



This document considers the mechanical, public health and electrical services works required and implications to the base build plant provision of undertaking an enhanced Cat-A fit-out of the office floors 1-3 and 6-9. The lower floors of the building mostly remains in occupation.

2 Strip-Out of Existing

The existing building services systems to the floors to be refurbished are to be carefully cut back, generally to riser connections and be removed and safely disposed of.

The subsequent strip-out and enabling works installations shall encompass investigations and validations, making safe, draining down, decommissioning, isolation, and safe removal of all engineering services as required.

3 Building Services Strategy

Existing central heating and cooling plant located at basement and roof will provide low temperature hot water and chilled water to the office floors via connections to existing services risers. Electrical supplies for lighting and power and IT services will also be derived from existing plant and equipment and, similarly to heating and cooling, will be connected to existing services risers.

The existing ventilation systems are unable to provide sufficient air to accommodate the required occupancy. A combination of new central air handling plant and some on-floor air handling plant is to be installed to provide sufficient fresh air for the increased building occupancy. Existing ventilation louvres within the second floor façade is to be refurbished and reused to provide a fresh air intake location for the lower levels of the building. This will require provision of new or enlarged on-floor plant rooms to house new air handling equipment. The existing builderswork risers are to be re-used for main ductwork distribution. Where ductwork exits the risers onto the office floors, existing openings in the riser walls will require enlarging.

All new equipment and plant will comply with the noise criteria as set out within the Noise Impact Assessment produced by Sol Acoustics.

4 Main Plant Provisions

The existing roof mounted air handling units (AHUs) shall be replaced with new high efficiency units incorporating heat recovery. These shall be of a similar size to the existing and shall be located in the same locations as indicated in Figure 2 below. The AHUs located at roof level shall be designed to serve floors 3, 6 and 7, with separate dedicated AHUs provided to serve the 8th and 9th floors.

Figure 2 – Existing roof plant areas to be re-used for new plant – 8th Floor

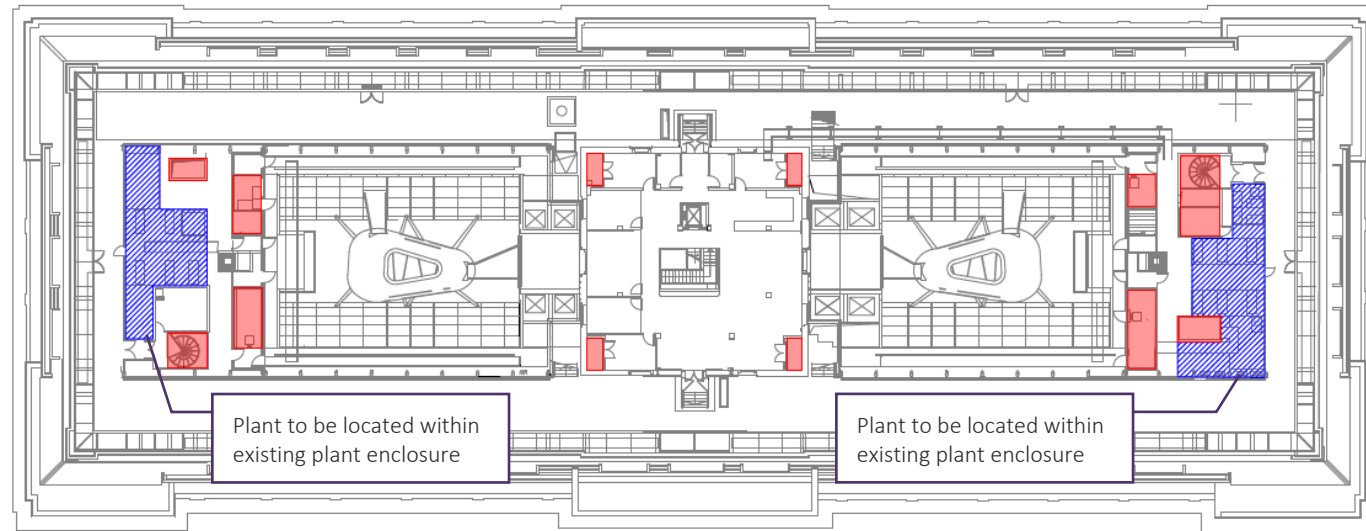
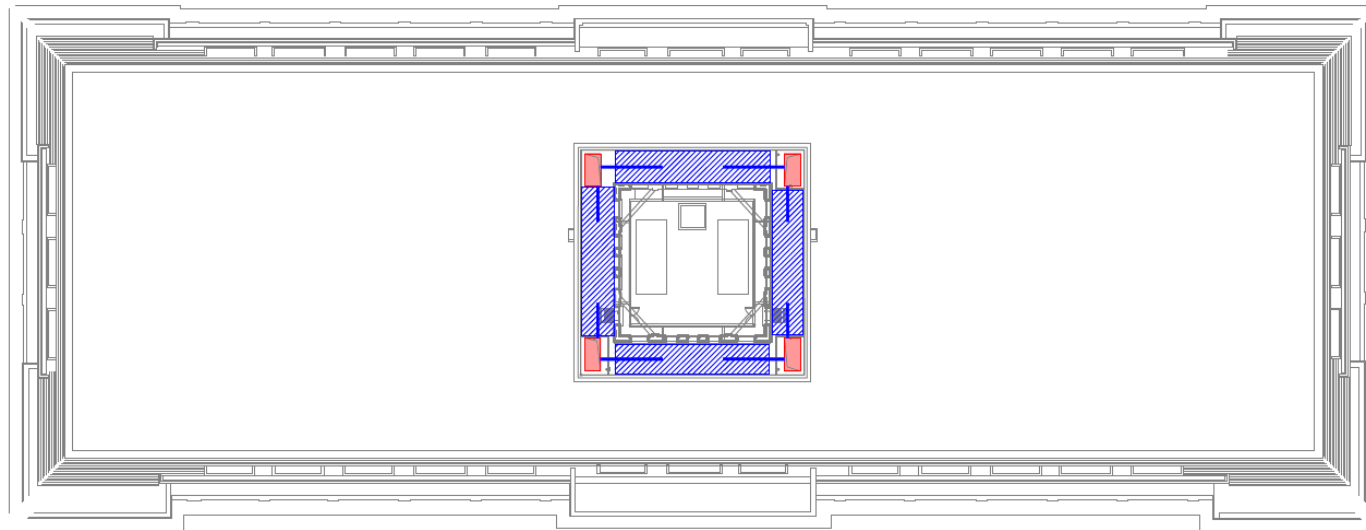


Figure 3 – Existing roof plant areas to be retained – 10th Floor



On floor AHUs shall be provided on the first and second floors to serve these floors only. These units shall re-use the existing louvres on the façade at second floor level for fresh air intake. Existing ventilation louvres within the second floor façade is to be refurbished and reused to provide a fresh air intake location for the lower levels of the building. This will require provision of new or enlarged on-floor plant rooms to house new air handling equipment.

Figure 4 – First Floor Plant Room Locations

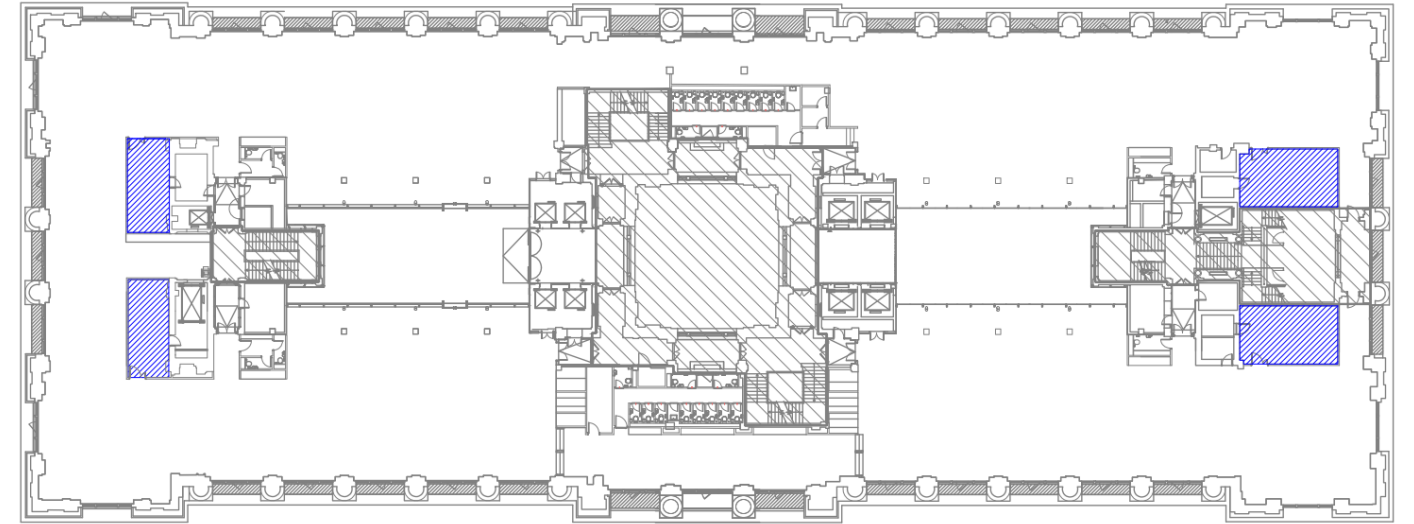
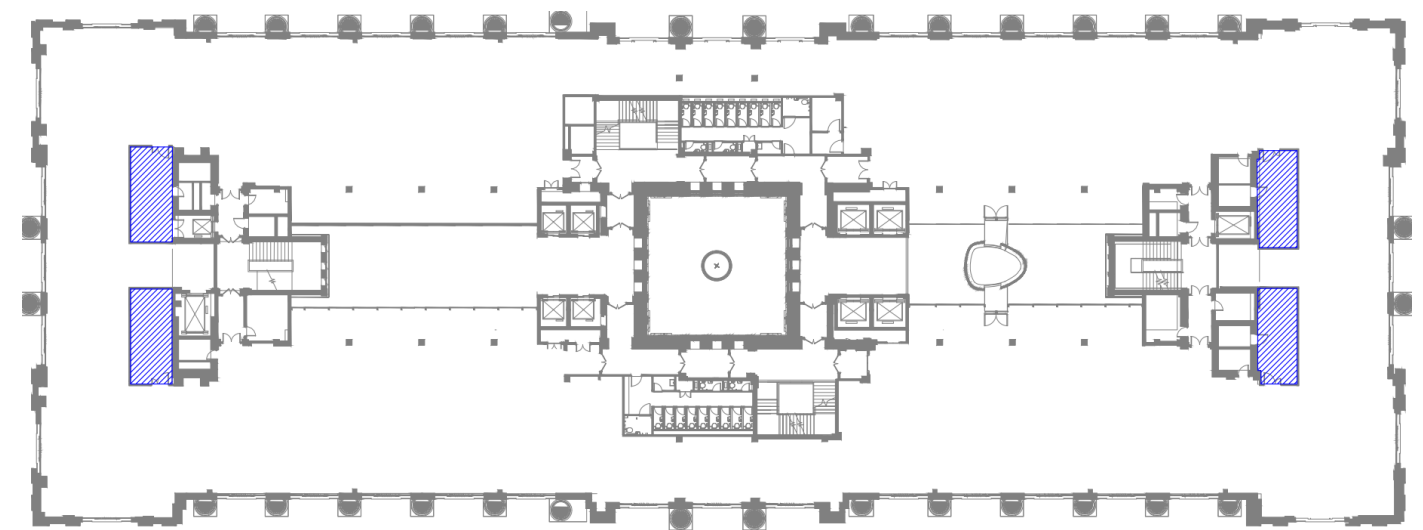


Figure 4 – Second Floor Plant Room Locations



- Key
- Indicative Plant Area
 - Indicative Main Services Distribution Route
 - Existing Risers to be re-used

5 On Floor Services Arrangement

For each of the office floors at floor entry and around the central core area, architecturally designed reception and/or break out spaces shall be provided. In these areas, services shall generally be concealed above false ceilings or concealed within services cupboards. Refer to architectural information.

For the remaining commercial space, the mechanical, public health, and electrical services the intention is to omit the existing false ceiling exposing the existing structure. New engineering services installation will be provided throughout, and these will also be generally exposed.

As the overall aesthetic is of great importance the exposed services design solution has been developed with the client and architect.

It is intended that the existing raised floor installation be retained with new power and data installations installed in the void beneath. The floor is to be covered with a timber finish and power and data presentation to desks will be via flush floor grommets.

Indicative mechanical and electrical layouts have been developed for a typical individual bay. And these will be reproduced across the floor plate.

Services distribution will feed out from the existing risers and where on-floor AHUs are provided from the new plant room locations for each quadrant and distribute at high level within the central corridor as indicated in Figure . For cellular office fit out each room will be fed directly off this main service route, allowing flexibility in terms of partitioning of rooms.

Figure 5 – High Level Services Flexible Arrangement

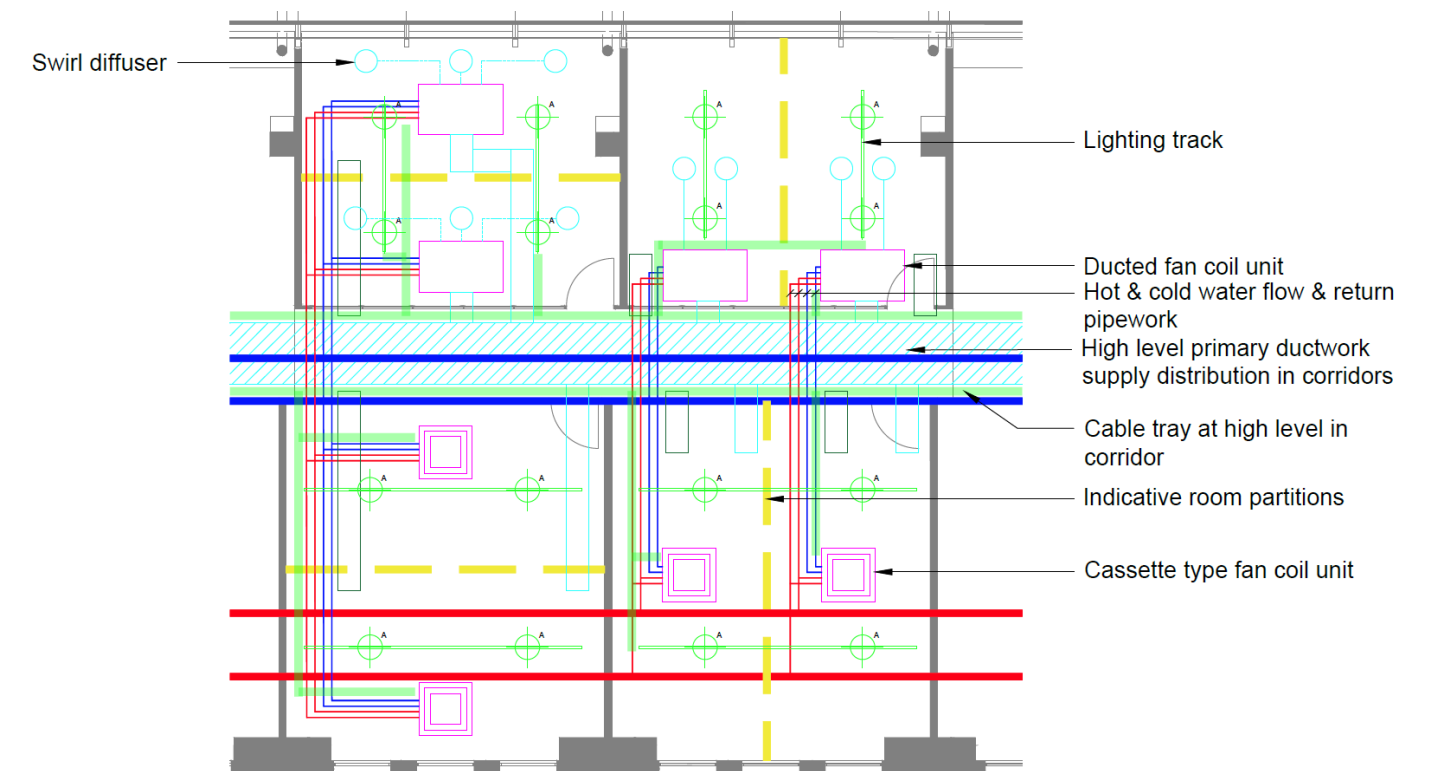
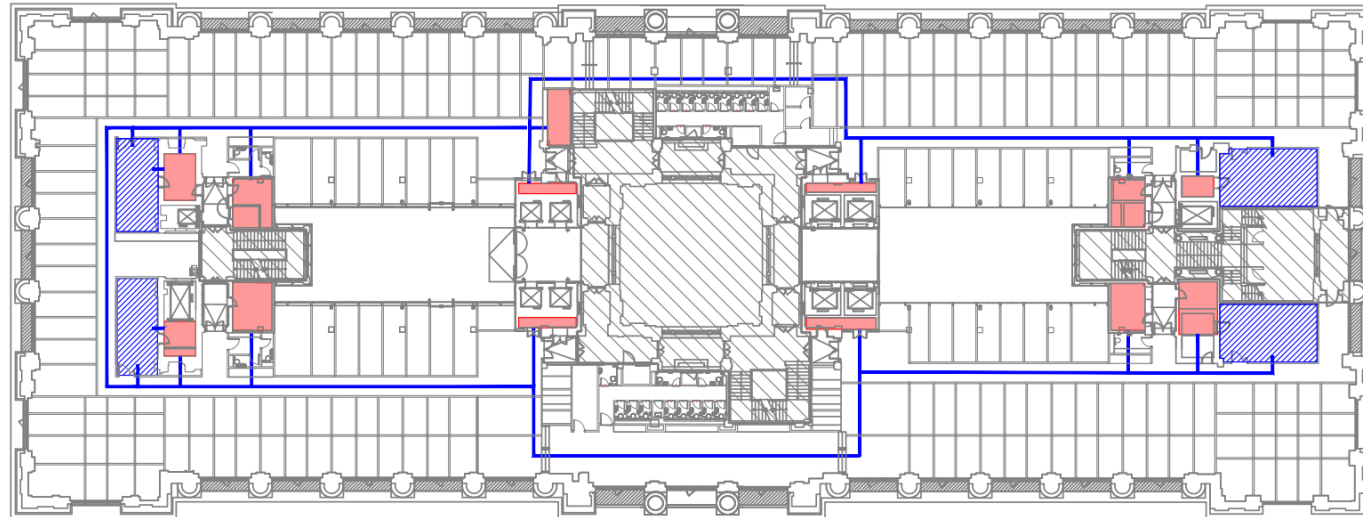
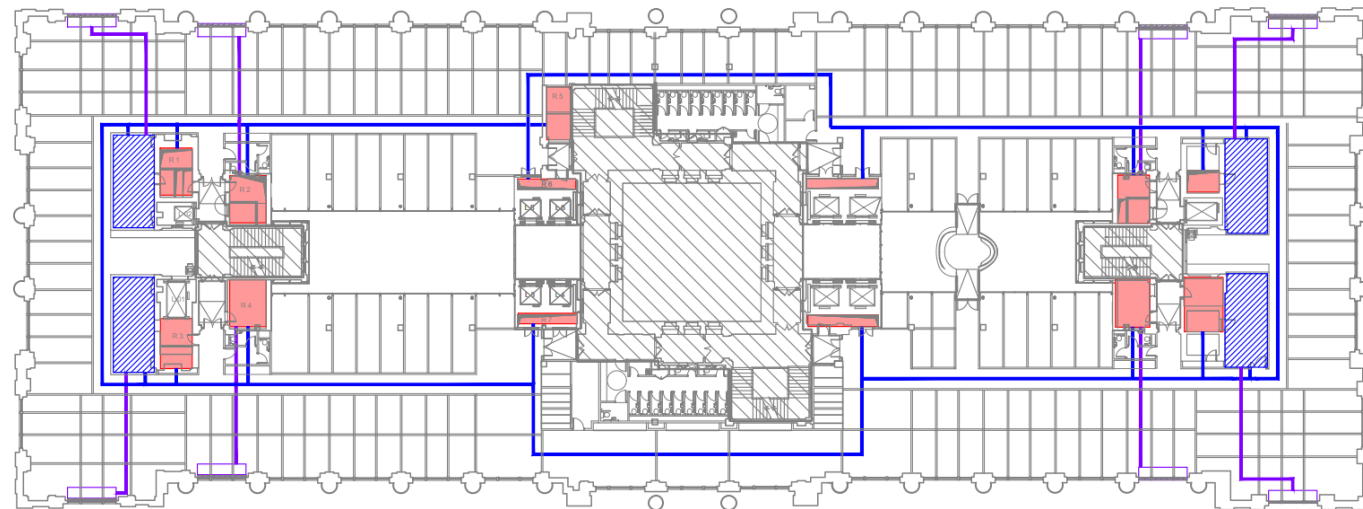


Figure 6 – On Floor Services Arrangement

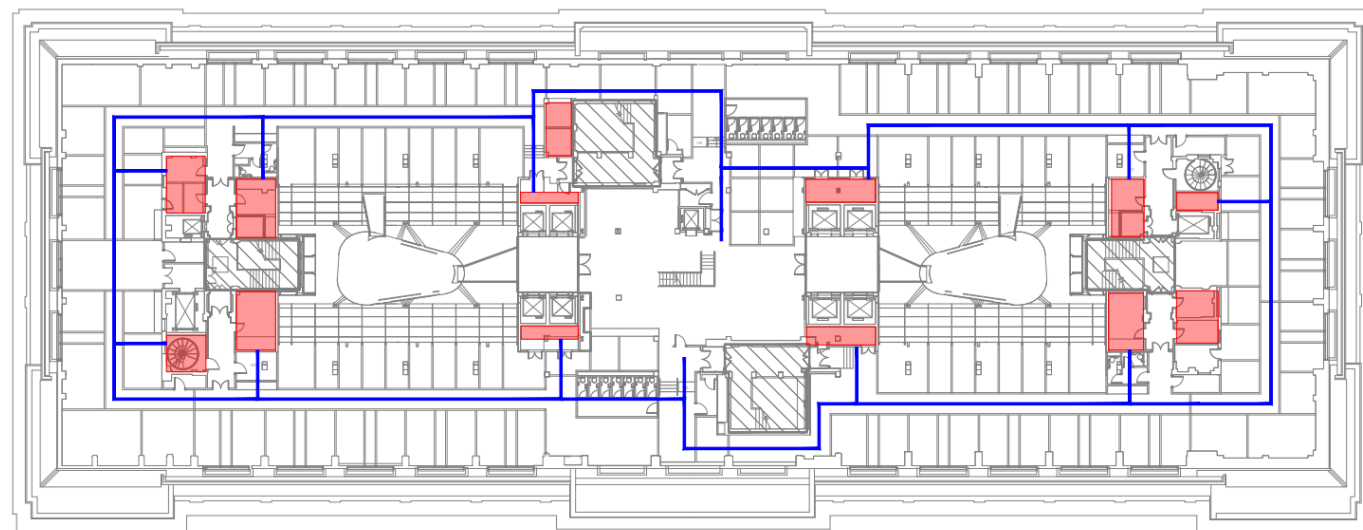
1st Floor Main Services Distribution Route



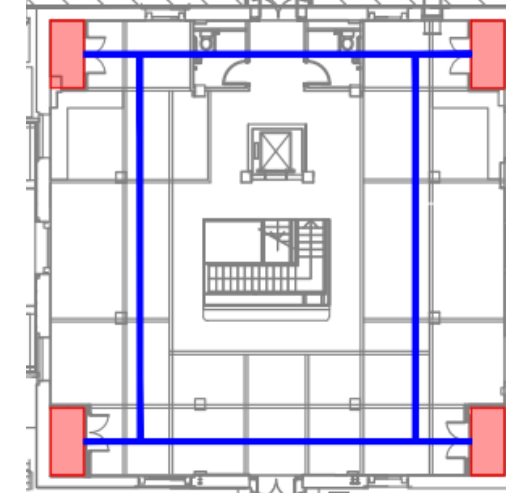
2nd Floor Main Services Distribution Route



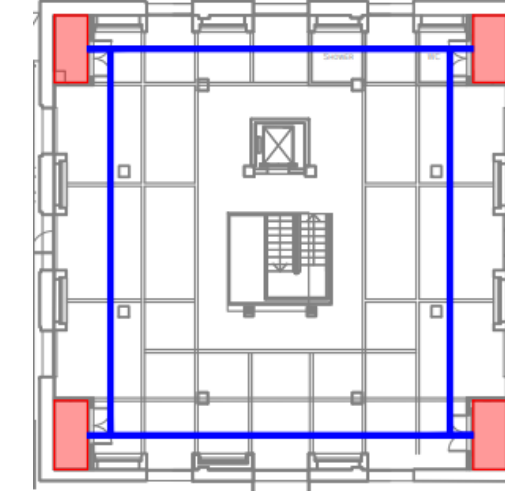
Typical Floor – 3rd, 6th and 7th Floor Main Services Distribution Route








8th Floor Main Services Distribution Route



9th Floor Main Services Distribution Route



Key

-  Indicative Plant Area
-  Indicative Main Services Distribution Route
-  Existing Risers
-  Existing Façade Ventilation Louvre
-  Indicative Ductwork Connections to Façade Louvres, Plant Rooms and Risers

5.1 MEP Stage 3 Information Enclosed

At the time of submission the MEP design for floors 2 and 6-9 have been developed to Stage 3 (Developed Design) as defined in BSRIA BG6 / 2018. The Stage 3 layout drawings for these floors have therefore been enclosed with this submission for reference. It should be noted that the Stage 3 drawings set out the principles to be adopted for the MEP fit out of the floors, however final location and numbers of services and plant items are subject to change in line with the next stage of design and also in line with the desired flexibility of partition locations.

Floors 1 and 3 are currently not developed to stage 3 and as such reference should be made to floor 2 layouts for floor 1, and floor 6 layouts for floor 3. The main discrepancy between floors 1 and 2 is that where floor 1 will also be provided with on floor ventilation plant rooms, no additional louvres will be provided on the façade, instead connection will be made to the existing louvres on the second floor with connecting ductwork routed via the existing riser provision.

6 Energy Efficiency

The existing gas boilers and water cooled chillers will be retained in situ. All new pipework distribution and 4 pipe fan coil units or cassettes will be individually controlled providing room-by-room temperature adjustment.

New ventilation plant shall incorporate high efficiency heat recovery and inverter driven fans.

All light fittings shall be low energy and shall predominantly utilise LED technology with occupancy sensing to ensure that lighting is only provided when necessary.

Electrical metering shall be provided to indicate current and historical consumption to encourage energy conservation.

All M&E systems shall be designed and installed in accordance with Part L2B of the Building Regulations.