9 Northington Street, London, WC1N 2JF

Structural Statement in support of planning

QUANTUM ENGINEER
DESIGN IS IN THE DETAIL

Project Number:	240105-01
Date:	09th February 2024
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Introduction:

I confirm that Quantum Ltd, who are Structural Engineers, have been appointed to carry out a structural inspection to the property at the above address and advise on the structural implications of the proposed alterations.

This report has been compiled by John Fitzpatrick BEng CEng MIE MICE. This report is for the sole use of the client and the Local Authority Planning department and should not be relied upon by any third parties.

The purpose of this report is to comment on the structural impact of the proposed internal alterations. This report is required by the local authority for Listed Building Consent.

The building was visited on 21st January 2024. Access was gained to all parts of the property, except where noted on the drawings. No access was available onto the roof or neighbouring properties or gardens.

Following on from our appointment and subsequent discussion with the architect, we have carried out a desktop review of the supplied information as well as a visual inspection at the property. The visual inspection was carried out without intrusive investigations having been carried out. Additional investigations and openings maybe required to carry out detailed design and to assess in further details some of the points below and the findings to date cannot be considered to apply to areas of the building not inspected or investigated. The report is intended for use by the client in support of their planning application and no liability is transferred or assumed beyond that.

Existing property description and comments on construction type:

The property is a terraced property, adjoining to the rear of those backing off Johns Street. It is laid out over three storeys with lower ground floor below constructed in the mid nineteenth century. Various alterations have been undertaken to the property since its original construction and it has been directly connected into number 9 John Street at some period between 1896 and 1901. The last major set of works was carried out in the mid 1970's, but little has been done to the main structure since then. The building seems to have a historic use as office space. The chronology and nature of these is described in detail in the accompanying Heritage Statement by The Heritage Practice. The latest historical alterations from a structural perspective seem to have involved layout alterations and an expansion of the basement as this appears of a more modern construction.

It is mostly of traditional construction with loadbearing brickwork walls and suspended timber floors above lower ground floor, with a reinforced concrete construction with beam and pot slab over the extended lower ground area. The latter construction suggests that the current lower ground floor footprint is not original as the external wall seems to be constructed of concrete but the type and age of the covering slab to form the ground floor structure suggests a construction time of the 1960's and 70's. The roof structure had limited inspections and appears to be a traditional cut timber construction. The foundations in places could not be confirmed by visual inspection but is expected to be corbelled brickwork at the foot of the walls sitting on the assumed later addition of the lower ground floor.

Proposed Works:

The proposed works generally comprise refurbishment of all levels of the property with some structural alterations as noted below:

- At lower ground floor level, stair positions are being altered to allow for better movement through the property. This involves infill floor plates in some areas to enclose current floor opening and trimming out other floor plates to allow new stairs to be fitted.
- The existing retaining structure to the lightwell area is in need of remedial works and will require some reinforced concrete structure to maintain the buttressing affect present to the existing garden wall at higher level.
- A new opening is required through the load bearing wall to form entrance way to new flat.
- Internal partitions are altered and relocated to divide spaces as noted.
- At ground floor, existing openings are to be widened to allow proper entrance doors to flats.
- New opening through load bearing wall required to access in flat.
- At first floor similar alterations are proposed as those on the lower floors, new opening are required, and other need adjustments needed to provide support to structure above to achieve alterations.
- At roof level, chimney stack alterations will likely require structure to support remaining stack above roof.
- New opening like those on lower level are again proposed and will require light structure above to retain existing support to roof.

Site Inspections:

No intrusive investigation has yet been carried out but from our investigations, in certain areas we can ascertain the likely floor joist spanning direction. The floors currently have raised access service floors so at junction box locations we could lift finishes and in a limited manner inspect likely floor joists spans. The joists generally span between load bearing walls running front to back on the section parallel to the front façade with them turning towards the back of the building to run perpendicular in this section. The floor essentially wraps around the main staircase core.

Access to the roof was limited, but the roof is believed to be a flat roof structure of timber construction likely supported off the same walls the main floors follow down the building.

Based on these investigations we have given a series of proposed structural solutions to the new works. The bulk of the structural works are to be carried out within the existing building and to adjust layouts internally, so the alterations don't impact on the fabric of the structure. Through the property the structural works involve the creation of new door openings and rationalization of service runs. These will require minimal and selected alteration to the existing structure, and it is suggested will be carried out in a sympathetic manner without compromising the overall structural stability of the building.

General Repairs & Relevelling:

In general, the building is in a fair condition for its age and type. Generally, the perimeter brick walls seem to be of sound construction and there is very little cracking evident to the external masonry walls. There has been some creep and deflection of the timber floors overtime, but they appear to be in good condition. There may be some rooms that require levelling works to be completed. This can be achieved using timber packers fixed to the top of the joists. Once the floors are exposed, if any of the timbers are found to be in a poor condition then it may be necessary to strengthen existing joists by bolting new joists to the side of the existing.

Structural alterations and discussion:

The proposed alterations as listed above in my opinion are feasible and would be considered standard in terms of their scope and or complexity. The bulk of the works within the property would be considered relatively minor and are restricted to providing new openings, alterations to existing openings and allowing for the distribution of services up through the building. While these will require some local opening and alterations to the historic fabric, new structure will be added to ensure adequate capacity and strength is retained and alterations to the existing will be kept to a minimum. The proposed works can be carried out

without impact to the structural stability and integrity of the existing building and the original boundary walls. A series of initial design proposals are included in sketch format in the following appendix.

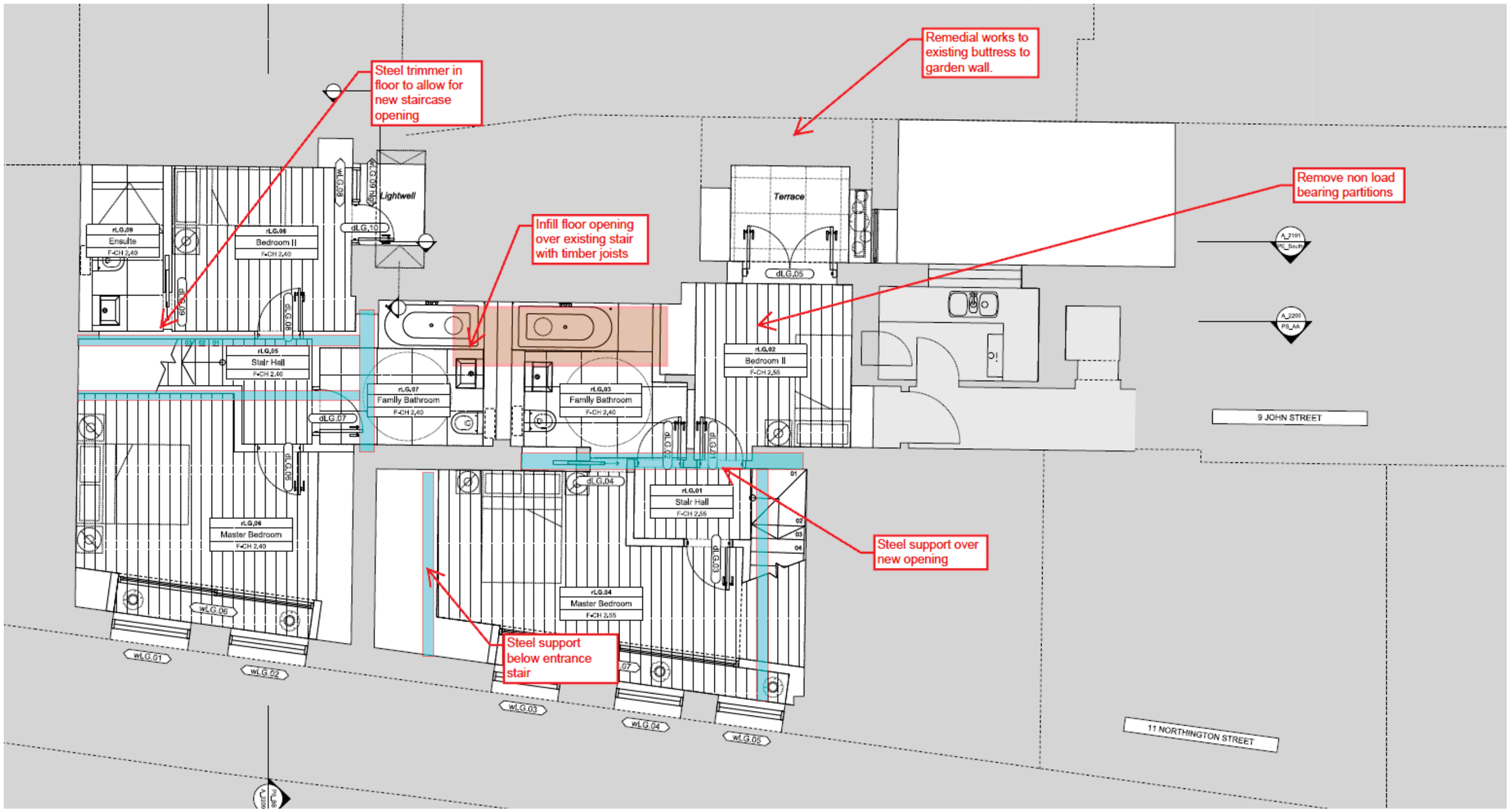
Following the required permissions, it is recommended that some further openings of specific areas are carried out to ascertain the exact build up and nature of construction so that the final designs can be carried out to ensure minimal impacts on the historic fabric.

Should you have any further queries relating to our role in the works, please do not hesitate to contact me.

Regards

John Fitzpatrick ***B (Struct) Eng, CEng, M.I.E.I., M.I.C.E***
Director Quantum Engineers

Appendix: A Sketches.



Notes:

1. This drawing is to be read in conjunction with all relevant architects, engineers & specialist sub-contractors' drawings and the specification.
2. Any discrepancies between the site conditions and these drawings to be reported to Quantum Engineer. Dimensions must not be scaled and should be checked on site.
3. All dimensions are in millimetres, levels are in metres a.o.d. (above ordnance datum).

FOR INFORMATION

Rev.	Date	Description	by	chkd	app
A	29/02/24	ISSUED FOR INFORMATION	JGF	JGF	JGF

Project
9 Northington Street
London
WC1N 2JF

Title
PROPOSED LOWER GROUND FLOOR PLAN

C/A

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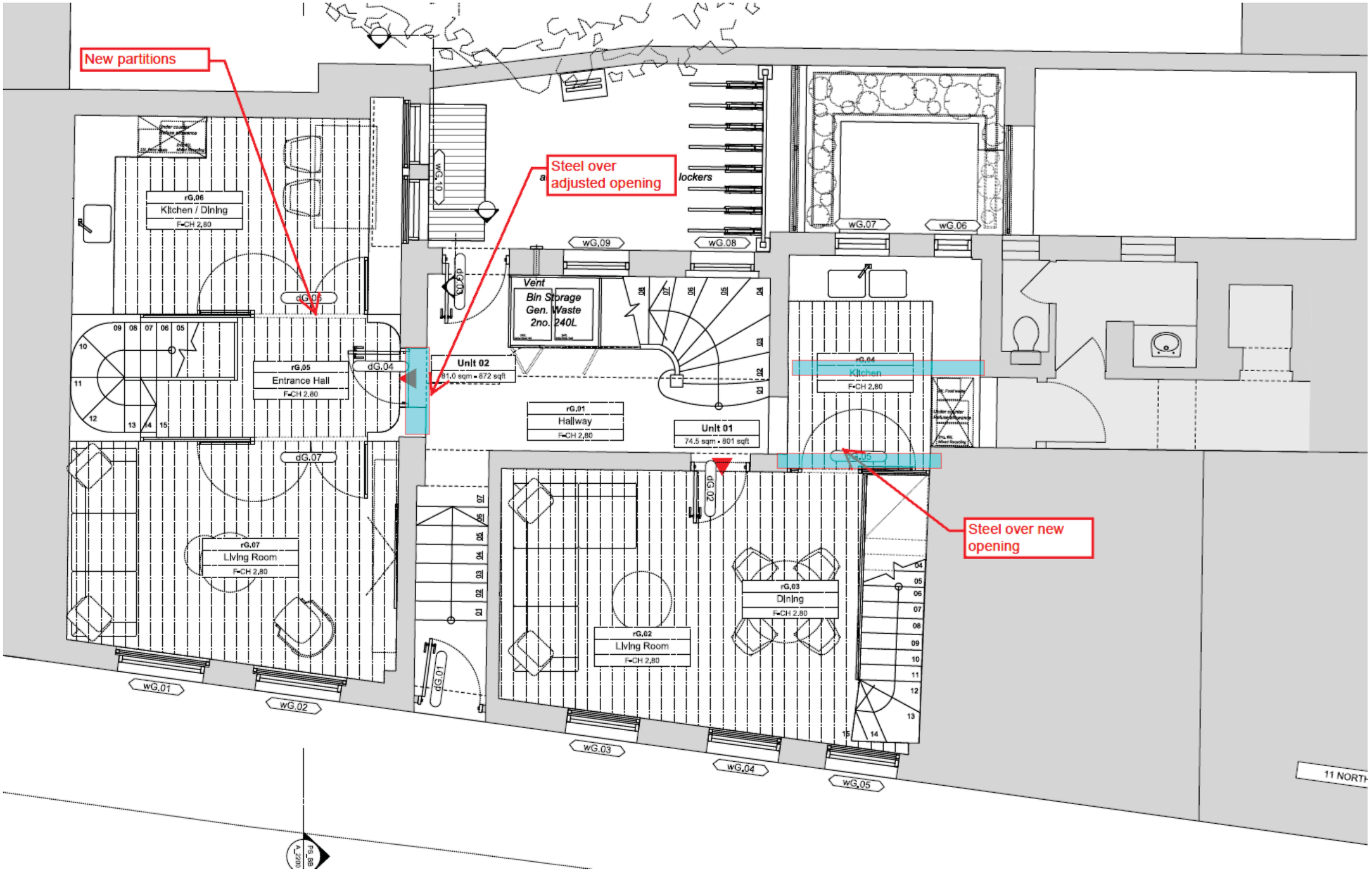
Scales (A1)	AS SHOWN	Drg. No.	Rev.
Drawn JGF	29/02/24	240105- 01	A
Chkd(Eng.) JGF	29/02/24		
Approved JGF	29/02/24		



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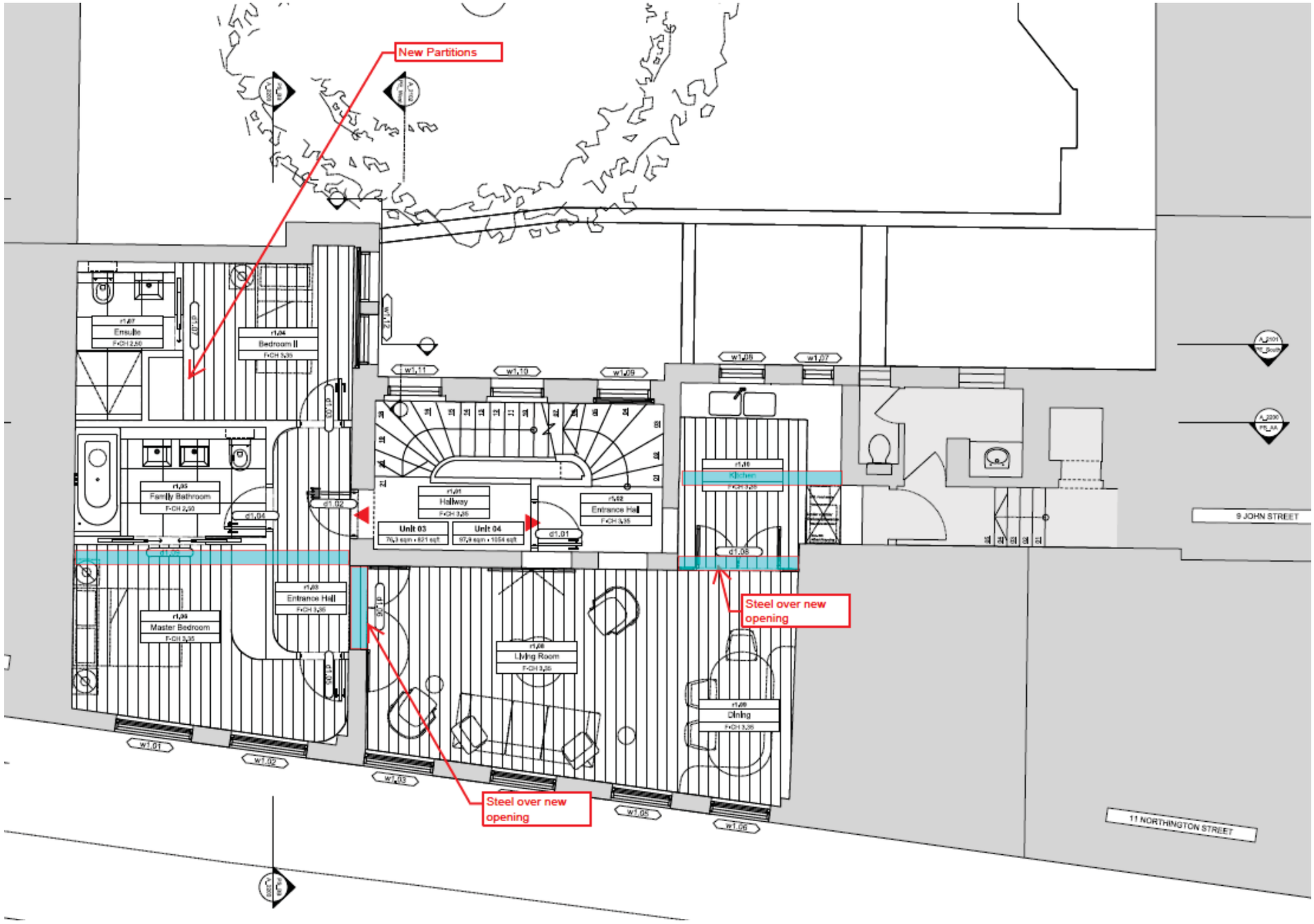

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Project
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Title
PROPOSED FIRST FLOOR PLAN

C/A

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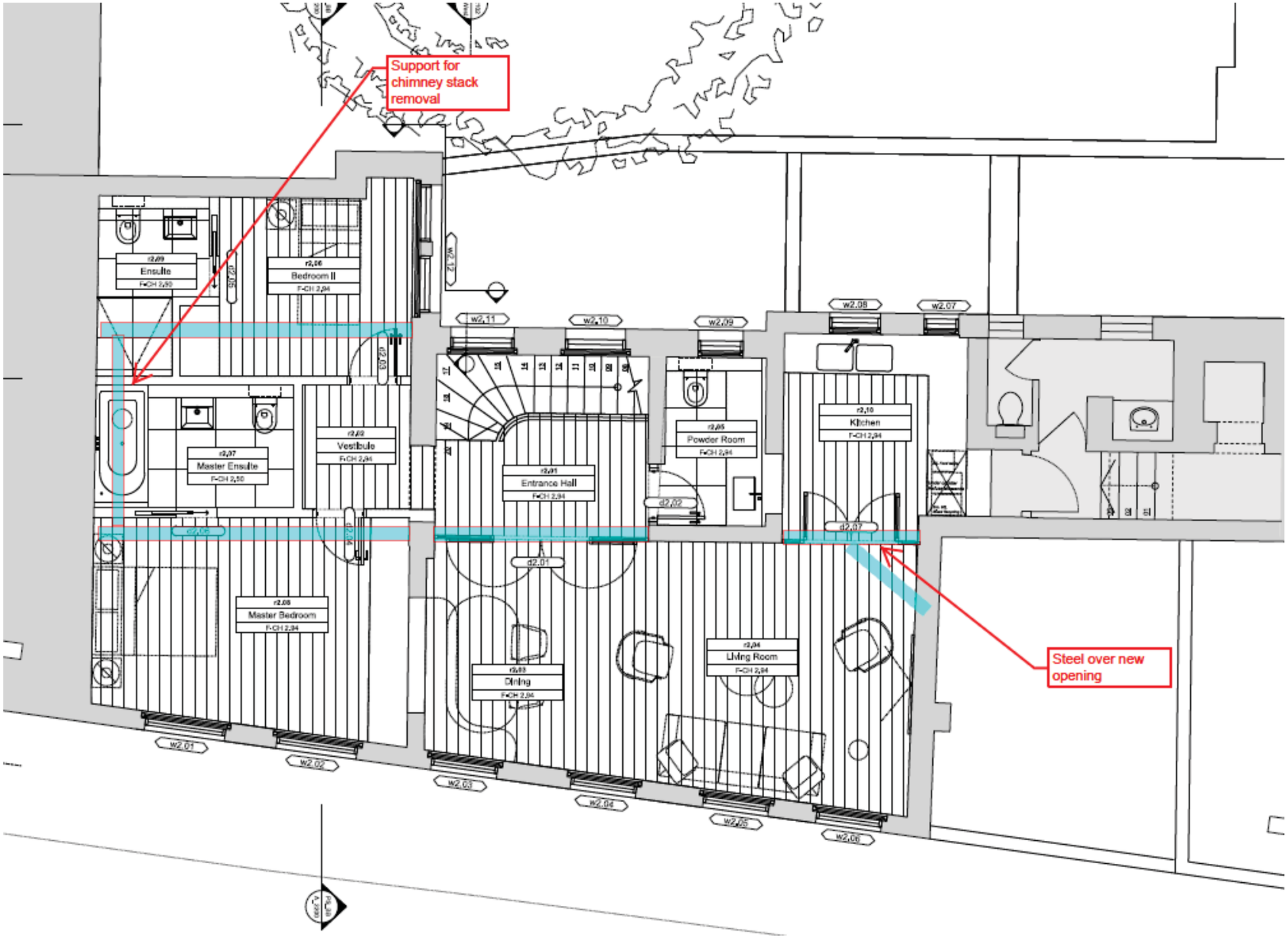
Scales (A1)	AS SHOWN	
Drawn	JGF	29/02/24
Chkd(Eng.)	JGF	29/02/24
Approved	JGF	29/02/24

Drg. No. 240105- 03

Rev. A



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A	29/02/24	ISSUED FOR INFORMATION	JGF	JGF	JGF

Project
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WC1N 2JF

Title
PROPOSED SECOND FLOOR PLAN

C/A

QUANTUM ENGINEER
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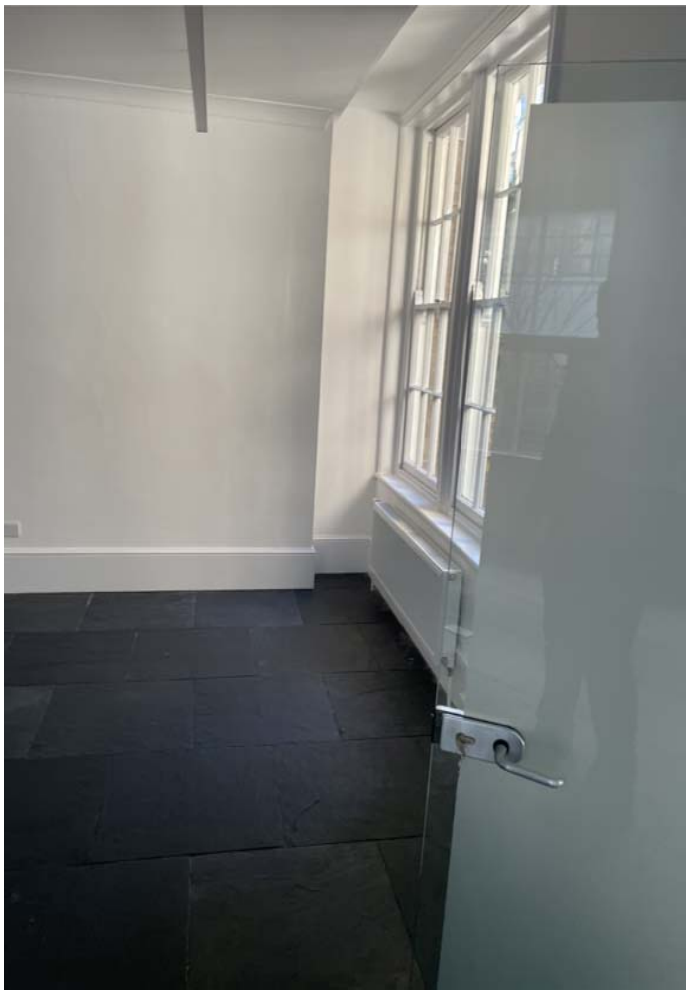
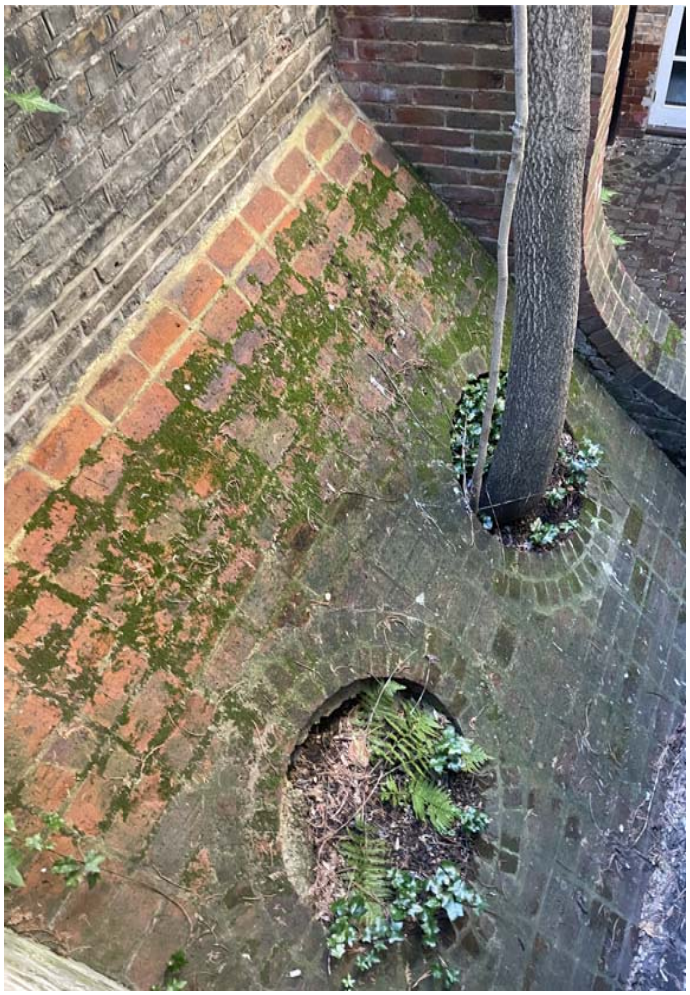
Scales (A1)	AS SHOWN	Drg. No.	Rev.
Drawn JGF	29/02/24	240105- 04	A
Ch'd(Eng.) JGF	29/02/24		
Approved JGF	29/02/24		

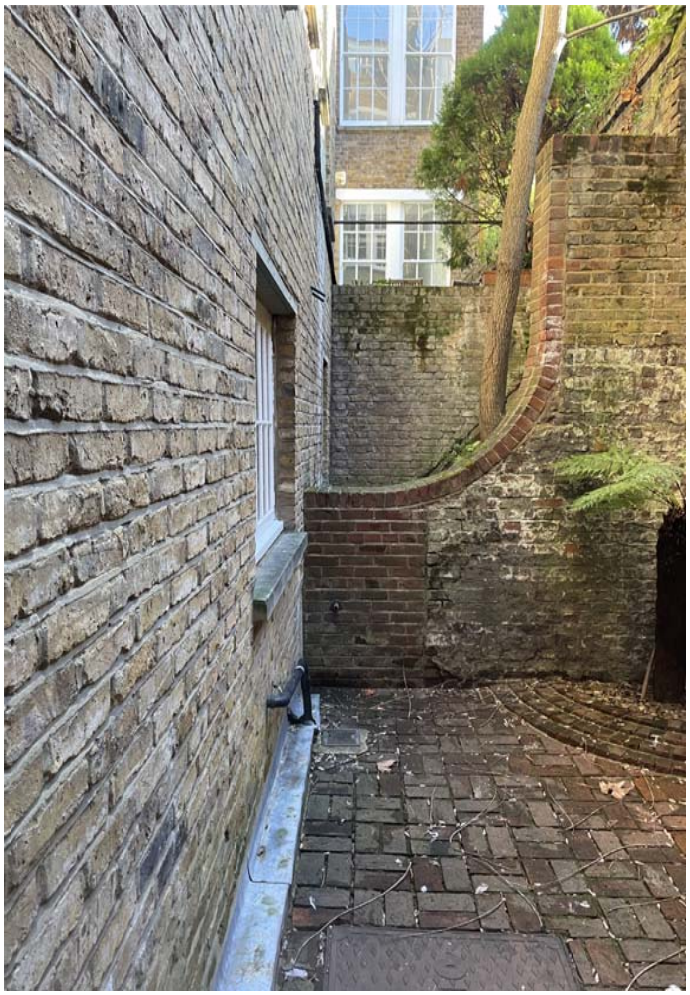
Appendix: B Photos.


PUSH






FIRE EXIT

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