5, BACON'S LANE, HIGHGATE, N6 6BL.

Condition & Feasibility Study (Options Appraisal)

September 2024

Document No.: 5BL-PP-9020 (Rev A)

Simon Fraser RIBA

Project Details

Client

Simon Fraser RIBA

Site Address

5, Bacon's Lane, London N6 6BL

Revision

Rev A 30-09-2024 Issued for Planning

Contents

1.0 Site Details

Site Address

5, Bacon's Lane, London N6 6BL

Site Location (Google Earth)

2.0 Introduction

This report has been prepared in response to the Pre-Application Advice received from Camden Planning Department 29.08.2024 (Re. 2024/0627/PRE). It will set out the assessment and design considerations undertaken to date and explain the rationale behind the proposal for the demolition and replacement of the existing dwelling.

The Condition & Feasibility Study focuses on:

- Structural Appraisal
- Building Services Appraisal

It was approved in the previous 2017 application that the existing single storey annexe could be demolished to enable a two-storey extension to the existing house.

This report is to be read in conjunction with the following documents:

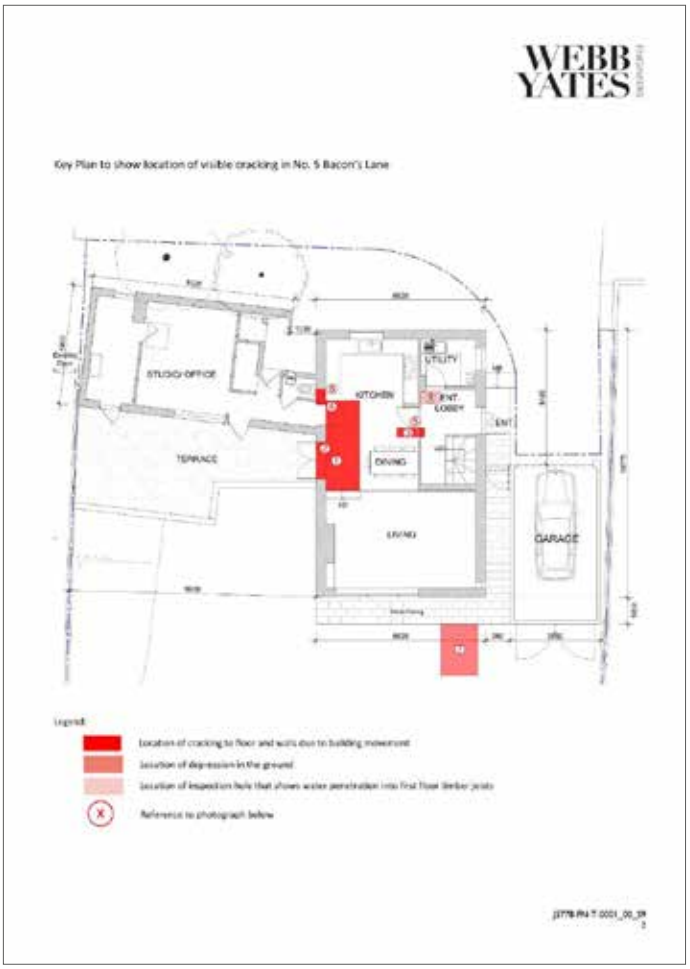
- Design & Access Statement
- Sustainability Statement (WYE)
- Rationale for Demolition & Re-Build (WYE)
- Pre-Demolition Audit

3.0 Condition & Feasibility

Structural Appraisal:

The existing building has previously suffered movement causing damage to the property. Today the building shows signs of further movement. This suggests that movement, albeit slight, is ongoing. The cause of the ongoing movement could be investigated further, and remedial works outlined to repair the damage caused. However, this has been done before and proven not to be adequate.

There is also evidence of water penetration into the first-floor structural timber joists. See Structural Engineer's 'Rationale for Demolition and Rebuild' document.



Extract of WYE's 'Rationale for Demolition and Rebuild' document Identifying recorded instances of building movement & cracking.

Photograph of cracks in floor showing ongoing building movement.

Photograph of cracks in wall showing ongoing building movement.

Photograph showing depression in ground.

3.0 Condition & Feasibility

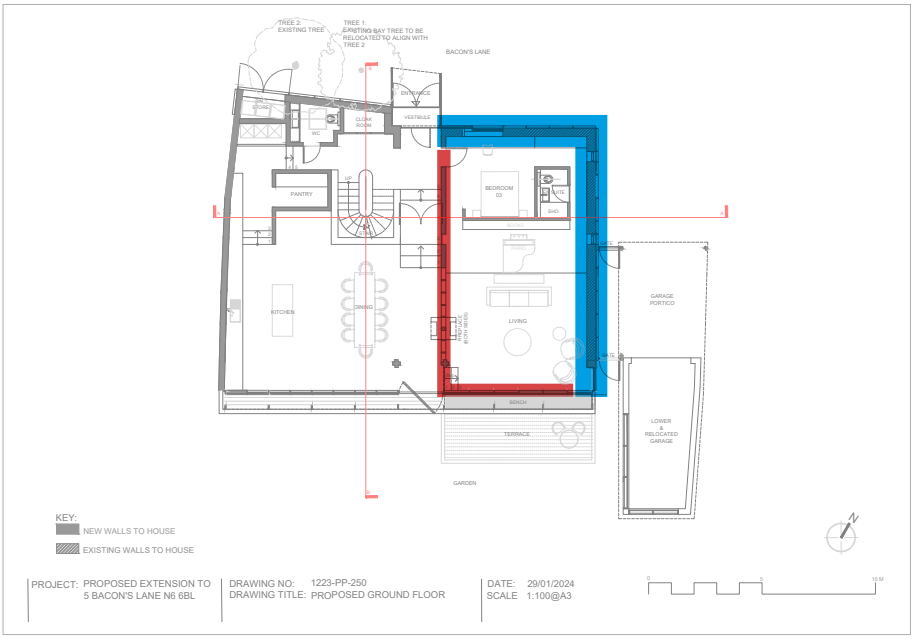
Building Services Appraisal:

It was explored that part of the north and west elevations could potentially be incorporated in the new layouts as they align with the new proposals. However, the existing cavity walls do not meet current building regulations for thermal performance (calculated at between 0.30 and 0.35 'U' value) and would require substantial upgrade to achieve the requirements (0.15) e.g. in addition to the existing Sto render, further adding a better performing over-cladding which is appropriate to the Conservation Area.

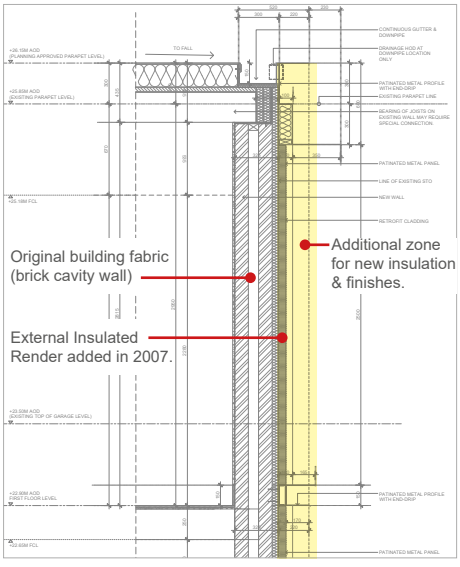
This would require an inefficient wall build-up to achieve the required 'U' values as well as structural retention of the walls during construction. The existing walls would be susceptible to further remedial works and complications to address the structural movement issues and achieve an acceptable air permeability performance.

The Service Engineer's Sustainability investigations (see Sustainability Statement) have showed that in addition to ensuring structural safety, demolishing and rebuilding will lead to the most energy and carbon efficient design.

TIA of heat loss to No. 5 ground floor and windows



Extract of early Ground Level Plan, shared at Pre-Application Stage
Design sought to maximise retention of significant portion of the building envelope.



Envelope Study showing existing build-up.
Detail complexity 'adding' to 2007 modifications.

4.0 Appendix 1

Rationale for Demolition & Re-Build (WYE)

RATIONALE FOR DEMOLITION AND RE-BUILD

Project	Bacon's Lane				
Reference	J5778-FN-T-0001_00_S9				
Date	August 2024	**Job number**	J5778	**Author**	JG/PD

The proposal to demolish and re-build the existing building at 5 Bacons Lane is based on the following rationale:

The existing building has suffered movement causing damage to the property. This damage was the subject of an insurance claim in 2004 for the necessary repairs to the superstructure, which were subsequently completed. We don't believe any remedial works were undertaken to the building's foundations.

Today the building shows signs of further movement; apparent with cracks visible in the floor finishes and in the walls of the property, as well as a depression in the external ground (refer to the photographs below). This suggests that movement, albeit slight, is ongoing. The cause of the ongoing movement could be investigated further, and remedial works outlined to repair the damage caused. However, this has been done before and proven not be adequate. There is also evidence of water penetration into the first-floor structural timber joists.

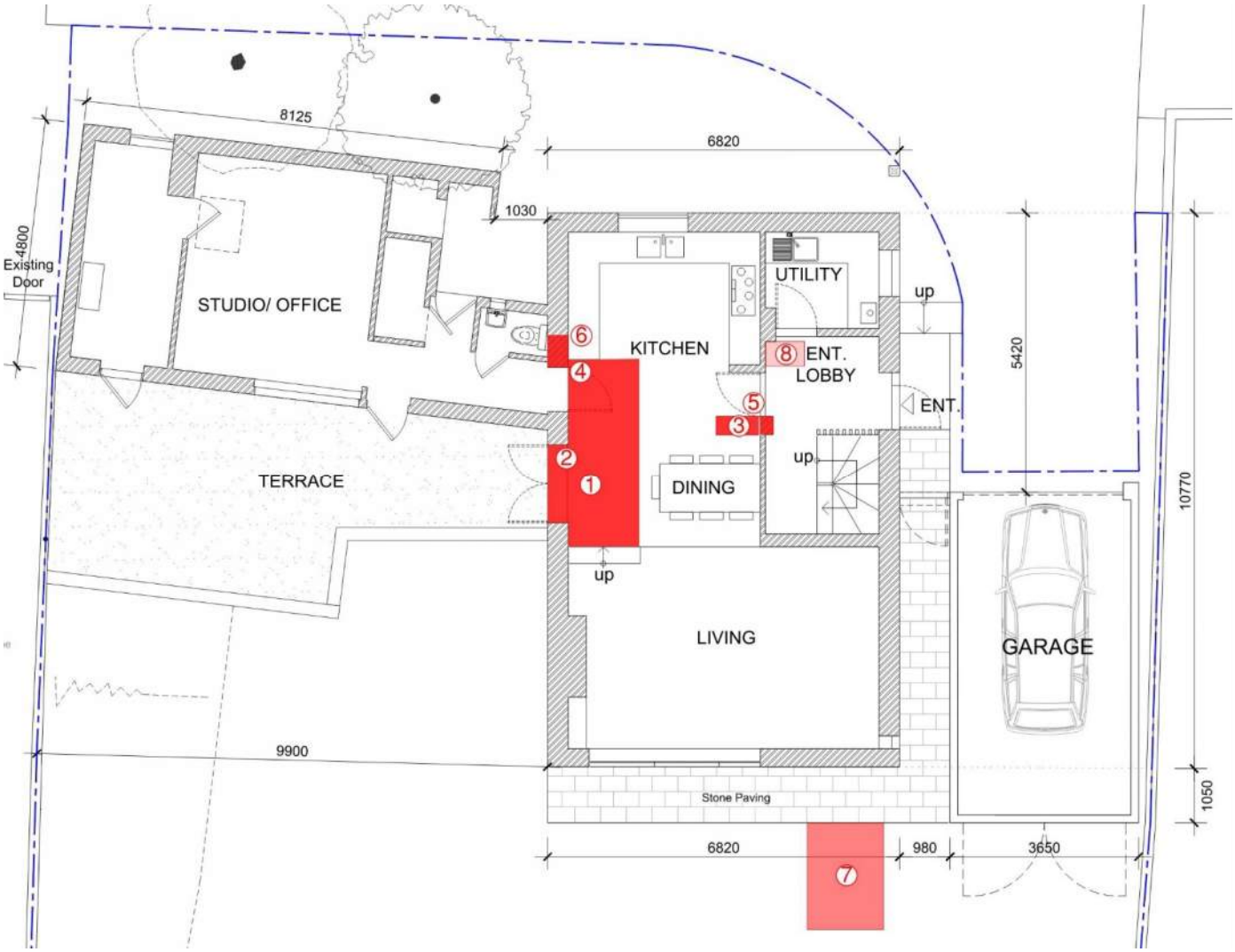
Part of the north and west elevations align with the new proposals so could potentially be incorporated in the new layouts. However, these cavity walls are unlikely to meet current building regulations for thermal performance. These walls are rendered which is not in keeping with the local vernacular.

The proposed house layout has the potential for a small area of the existing fabric to be retained and incorporated. However, would compromise the overall performance of the new house.

Designing and building a new property will ensure that the house is fit for purpose, meets the current building regulations and is built to meet and exceed current embodied and operational carbon targets where possible – resulting in a new property that minimises its long-term impact on the environment.

Webb Yates Engineers Ltd
48-50 Scrutton Street
London. EC2A 4HH
020 3696 1550
london@webbyates.com
www.webbyates.com

Key Plan to show location of visible cracking in No. 5 Bacon's Lane



Legend:

- Location of cracking to floor and walls due to building movement
- Location of depression in the ground
- Location of inspection hole that shows water penetration into first floor timber joists
- X — Reference to photograph below

1 Photograph showing cracks in floor due to ongoing building movement

2 Photograph showing cracks in floor due to ongoing building movement

3 Photograph showing cracks in floor due to ongoing building movement

4 Photograph showing cracks in floor due to ongoing building movement

5 Photograph showing cracks in wall due to ongoing building movement

6 Photograph showing cracks in wall due to ongoing building movement

7 Photograph showing depression in the ground

8 Photograph of inspection hole that shows water penetration to the first floor timber joists