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Method Statement for the Creation of a Waterproof Basement Floor

at

14 Endsleigh Street

London WC1

Document History and Status

Revision	Status	By	Approved	Date
01	Draft issue	mor		13 August 2020
02	Further review	mor		14 August 2020
03	Formal Issue			14 August 2020

1.0 Introduction

Ross and Partners have been appointed to provide professional Civil and Structural Engineering Services in support of the restoration of 14 Endsleigh Street, London WC1.

No 14 Endsleigh Street is a Grade II listed building that lies within a terrace of houses that were built c1825. The building has been unused for many years and the present project aims to restore the property to its original use.

The existing basement floor is formed of York stone flags laid on a course of bricks leaving a cavity below. The walls and floor are damp, the underfloor cavity prone to rats. In order to provide an healthy environment and provide a floor construction in accordance with Part C of the Building Regulations, it is proposed the existing flagstones will be carefully lifted, temporarily stored on site and reinstated on completion of the new basement floor construction.

This report proposes the outline methodology.

2.0 Terms of Reference

This report has been prepared by Ross and Partners on the instructions of, and for the sole use and benefit of the client, Overbury. No professional liability or warranty is extended to other parties by Ross and Partners as a result of this report being used by others without the written permission of Ross and Partners.

3.0 Statement of Intent

The client, design team and contractor are committed to the exercise of reasonable skill care and diligence in executing the works with due regard to the protection of historic assets that remain within the building and to working with all interested parties to achieve these goals.

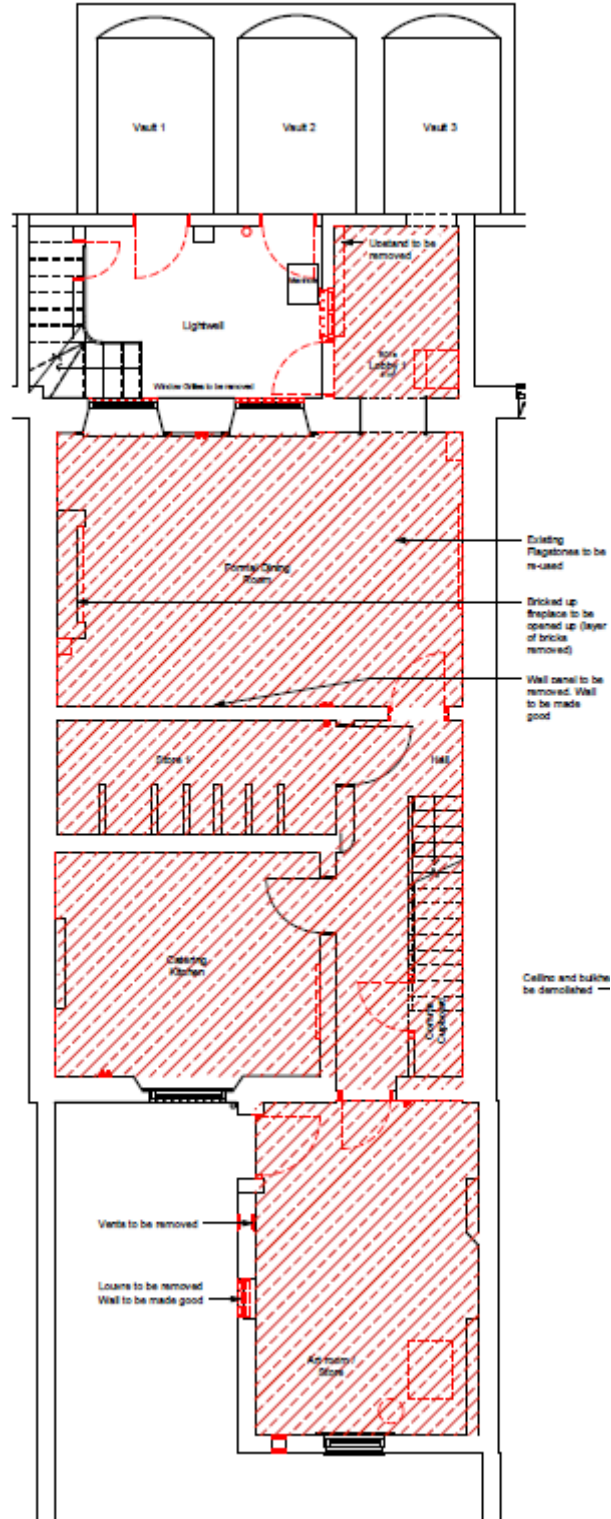
4.0 Site Context

The property is located within a terrace of even houses on the western side of Endsleigh Street, London, W1. The building is arranged over basement, ground and first to fourth floors inclusive. There is a small garden to the rear.



5.0 Existing Lower Ground Floor

The existing lower ground floor is formed of solid Yorkstone slabs laid on a brick course on the existing earth. The stones vary in size and are arranged with close formed joints. The extent of existing paving is illustrated below by the red hatched area.





Existing arrangement in the front room



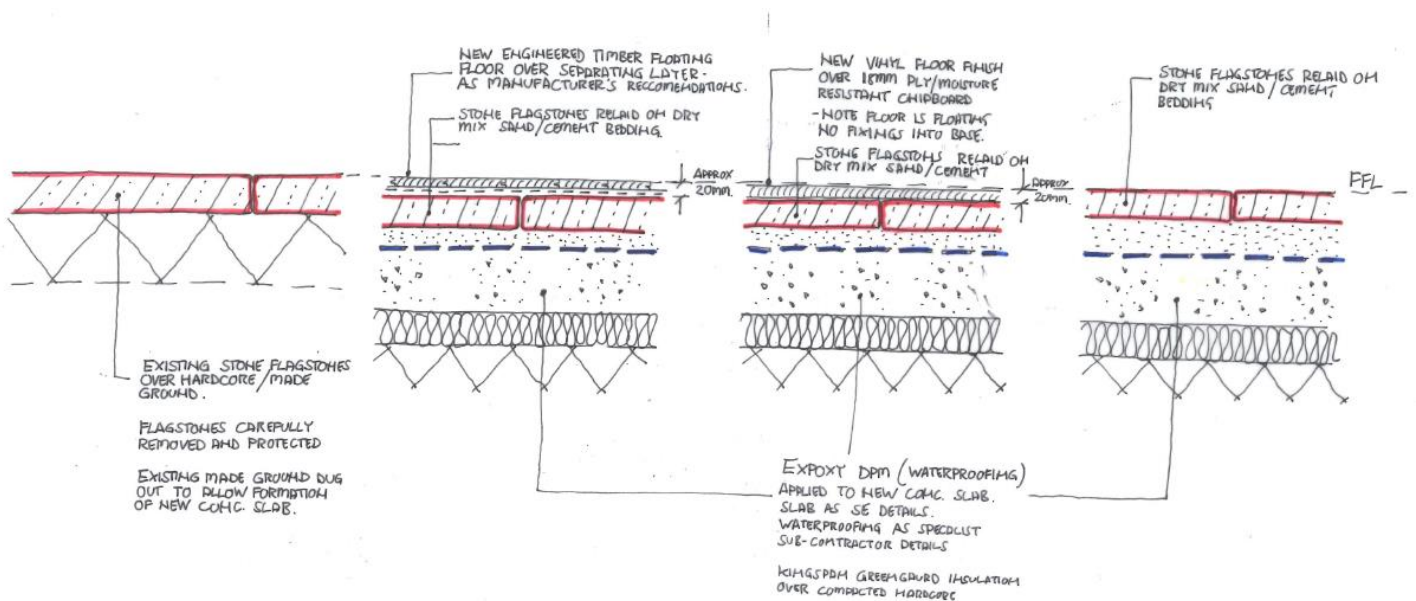
Close up Detail of the floor Construction

6.0 Outline Proposals

In order to create a new compliant basement floor, it the following is proposed:

- Each York stone slab is to be given a unique reference number and its position recorded.
- Each York stone slab will be lifted from its present position and temporarily stored on site.
- Within the existing central store-room, the existing dwarf brick dividing walls, which are built off the stone slabs are to be removed prior to removal of the stone slabs. These will be taken down by hand using non percussive tools and reinstated later.
- A new basement floor is to be formed including ground bearing slab, below slab insulation and damp-proof membrane.
- On completion, the York stones are to be reinstated in their original position on a dry sand bedding.
- A new protective membrane will be laid upon the slabs followed by a new timber "floating" floor finish.

The York stone slabs will be reinstated 60mm lower than their current position to accommodate the new finish. This will ensure we can retain existing skirtings, doors, frames and architraves (see below)



7.0 Method Statement

Aims and Objectives

The aim of this Method Statement is to provide a methodology and sequence of activities that enable the construction of a new basement floor that will comply with the requirements of the Building Regulations (Part L) whilst simultaneously protecting and preserving the heritage assets contained within the building.

Step 1 – On Site Recording

On a room by room basis, each stone is to be given a unique reference number that will define its existing position. The reference number will be marked upon the stone with chalk and upon a reference drawing. The room will be photographed. Each stone is to be visually surveyed to record existing condition and damage.



Step 2 – Lifting of Stones

The existing stone will be carefully lifted by hand. This will require the attendance of two operatives and a supervisor. The voids beneath the stones enable the operatives to slide two nylon lifting slings beneath each stone and manually lift out of position. This activity has already been successfully achieved on site. The stones nearest the garden shall be lifted first working gradually towards the front of the building.



Within the central store room, the existing dwarf half brick walls will be taken down by hand using non-percussive tools and stored for later reinstatement

Step 3 – Manoeuvring of Stones

The stone will then be laid on a four pneumatic wheeled flatbed trolley and moved into the garden area for temporary storage.



Step 4 – Unloading and Temporary Storage

Each stone will be unloaded using the nylon lifting slings onto a flat storage position in the rear garden. The position of each stone shall be noted. Waterproof sheeting will be provided.

Step 5 – Form New Basement Floor

The new basement floor is to be prepared to receive new below slab insulation, damp proof membrane and concrete floor slab with A142 Mesh in top.

Step 6 – Reinstatement of Stones

After the reinforced concrete slab has cured for not less than 28 days, a layer of dry sand shall be laid and compacted in accordance with BS7533. Working from the front of the building and gradually towards the rear, each stone will be carefully lifted with nylon slings by two operatives, placed upon four pneumatic wheeled flatbed trolley and moved towards its final position where it will be lifted into its original location.

This procedure is to be repeated for each and every stone until the floor has been fully reinstated.

7.0 Accidental Damage

Aims and Objectives

Whilst every reasonable endeavour will be exercised in the preservation of historic assets, there remains a possibility that some of the stones may have fractures and defects that remain concealed from view.

In the event that any defects are detected the following procedure should be followed.

Defect

If, during the course of works, a defect is noted that might result in further fracture or breakage of the stone, cease works and seek guidance from the supervising operative. A risk assessment will then be required to determine if the stone can be lifted securely without further risk of damage e.g using additional slings to ease any stress.

Damage

If, during the course of works, a stone fractures, cease works and seek guidance from the supervising operative.

The stone (s) must then be recorded for damage and an assessment made if they can be reinstated.