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Structural appraisal of proposed works to front vault

1 Berkeley Road, NW1
London

Ref: 19100/KH
By: K Hirst BEng CEng MIStructE
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1. INTRODUCTION

- 1.1. H|F-K have been instructed by Ben Pentreath Limited to act as Consulting Structural Engineers for the proposed works at 1 Berkley Road, NW1.
- 1.2. As part of the works it is proposed to lower the floor level to the front vault.

2. OBSERVATIONS

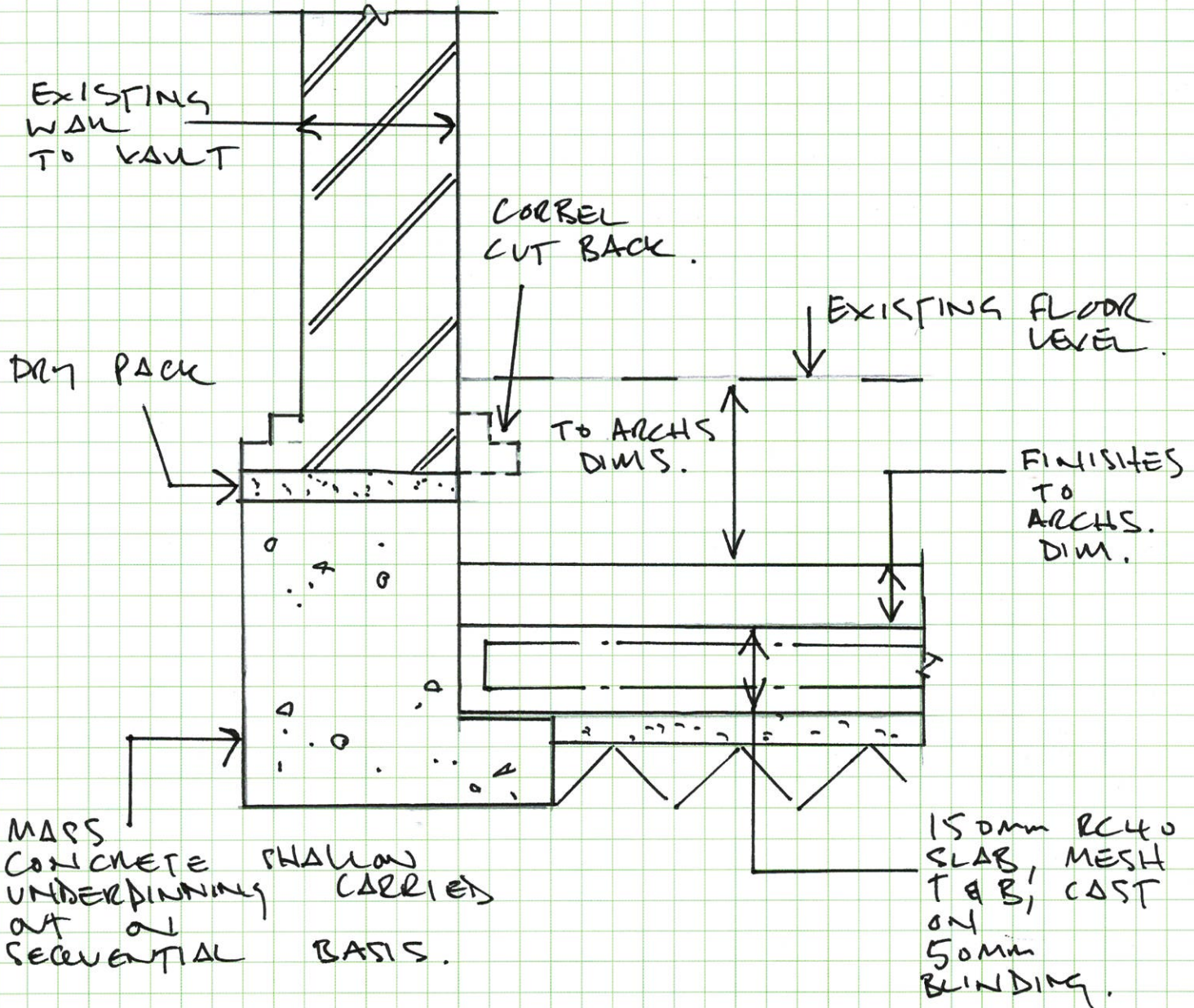
- 2.1. A site visit has been carried out in order to assess the existing construction.
- 2.2. A site investigation is proposed in early 2020 to identify the existing foundation profiles to the vaults., however, experience would suggest the footings to the vault walls are shallow corbelled brick footings between 200–300 mm deep, bearing into the underlying clay.
- 2.3. Full details of the site investigation and trial pits will be recorded and issued once the works have been carried out.

3. RECOMMENDATIONS AND CONCLUSIONS

- 3.1. In order to utilise the vaults, it is proposed to lower the ground floor, without undermining the existing corbelled foundations to the vault walls. Refer to H|F-K's drawing SK01 in Appendix A.
- 3.2. By employing this detail, the vault walls maintain the original fabric and provide robust foundations of the vaults.
- 3.3. It is proposed to retain the existing brick arch to the roof of the vault therefore maintaining the overall stability of the vault structure.
- 3.4. Under no circumstances are the existing foundations to the vault walls to be undermined.
- 3.5. All of the works are to be carried out by competent contractors who will submit a method statement for carrying out these works prior to the works taking place.
- 3.6. The proposed excavations are relatively small in extent and will be carried out by hand; no plant will be permitted.
- 3.7. The above proposals will give a modest headroom in the centre of the vault and will keep the excavation to a minimum. The characteristic cellular nature and scale of the vault will be retained.
- 3.8. A Chartered Structural Engineer from H|F-K will regularly attend site during the works to ensure the works are being carried out in accordance with our drawings, detail, and specification.

4. APPENDIX A

4.1. Proposed sketch detail through vault walls.



UNDERPIN DETAIL, 1/10.

H|F-K

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Project

1 BERKLEY ROAD.

Title

UNDERPIN TO VAULT

Rev Date

Description

Scale

1/10.

Drawn

KH

Engineer

KH

Date

12/19.

Drawing Status

INFO

Project No

19100

Revision

Drawing No

SK01.