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Ground Floor Flat
17 BRACKNELL GARDENS
LONDON NW3 7EE

Basement Impact Assessment
Screening Document

Client
Mr. & Mrs. Weinberg

Architect
Hugh Cullum Architects Limited

Report No. 3733 v2

20 March 2012

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APPENDICES

Ground Floor Flat
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LONDON NW3 7EE

Basement Impact Assessment
Screening Document

1
Introduction

This Screening Document has been commissioned by Hugh Cullum Architects Limited on behalf of owners Mr. & Mrs. Weinberg to address the requirements of Camden Planning Guidance CPG4 for Basements and Lightwells.

An Hydrological Assessment and Geotechnical Investigation have been commissioned for the site and will provide supporting information to this Screening Document.

2
Proposed development

The property is one of a pair of established semi - detached houses and provides flats at ground and first floor as illustrated at Appendix A. The current ground floor layout is shown at Figures B1 & B2 of Appendix B. It is proposed to remodel the rear part of the ground floor to provide additional accommodation and a basement as shown at Figures B3 to B5.

3
Screening process

The first stage of the Basement Impact Assessment (BIA) is a screening process to establish whether or not a BIA is required. The screening process is proscribed in CPG4 by flow charts for subterranean (ground water) flow, slope stability and surface flow and flooding. Each stage asks a series of questions which are answered as follows.

3.1
Ground water flow

Question 1a: Is the site located directly above an aquifer?

No. The stratum beneath the site is classified as Unproductive by the Environment Agency; i.e. deposits with low permeability that have negligible significance for water supply or river base flow. The nearest aquifer is some 60 m to the north east as shown at Figure B6 and lies upslope of the property.

Question 1b: Will the proposed basement extend beneath the water table surface?

Seepages have been encountered in a 4 m deep bore sunk for the Hydrological Assessment. Please refer to the forthcoming report and the Geotechnical Investigation commissioned from AP Geotechnics.

Question 2: Is the site within 100 m of a watercourse, well or potential spring line?

No surface water features were noted during the walk over survey and none are recorded on the Environment Agency web site. The site lies between two tributaries of the Westbourne mapped some 140 m north west and 310 m south east of the site by Barton[1]. Both are fully culverted.

Question 3: Is the site within the catchment of the pond chains on Hampstead Heath?

No. Reference to Arup[2] Figure 14 shows the site to be some 750 m south of the nearest catchment which is that for the Golders Hill chain.

Question 4: Will the proposed basement development result in a change in the proportion of hard surface/paved area?

The proposals will add about 17 m^2 to the current footprint of hard surfacing of some 355 m^2, an increase of less than 5%.

Question 5: As part of the site drainage, will more surface water than at present be discharged to the ground?

It is assumed that the small amount of additional roof water will be discharged to the existing system. However, this should be confirmed by the project drainage engineer.

Question 6: Is the lowest point of the proposed excavation close to or lower than the mean water level in any local pond or spring line?

No local ponds or spring lines have been observed, see Q2 above.

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[1] *Barton, N; The Lost Rivers of London; Historical Publications Ltd., 1992*

[2] *Camden geological, hydrogeological and hydrological study; Ove Arup & Partners Ltd., November 2010*

3.2
Slope stability

Question 1: Does the existing site include slopes greater than 7°?

At the location of the subject property, Bracknell Gardens slopes down to the north west at an angle of approximately 1.2°. The site slopes down at approximately 1.7° from the road frontage to the rear boundary.

Question 2: Will the proposed reprofiling of landscaping change slopes at the property boundary to more than 7°?

No changes are proposed to the slopes at the property boundaries. Local excavation in the rear garden to provide light to the basement will be supported by retaining wall some 3 m from the boundary.

Question 3: Does the development neighbour land with a slope greater than 7°?

Bracknell Gardens has a slope of just over 1° as Q1 above. Property on the opposite side of the road is at higher level and set back from the road, equivalent to a slope of some 5°.

Question 4: Is the site within a wider hillside setting in which the general slope is greater than 7°?

No. The steepest measured gradients in the vicinity are the fall of Bracknell Gardens at up to about 5° but this commences some 140 m to the north west of the property.

Question 5: Is the London Clay the shallowest stratum at the site?

Yes. The British Geological Survey show the site to be directly underlain by London Clay, no superficial deposits are recorded.

Question 6: Will any trees be felled as part of the proposed development?

No. All trees will remain unaffected.

Are any works proposed within any tree protection zones?

No, all works are remote from existing trees.

Question 7: Is there a history of seasonal shrink/swell subsidence in the local area or evidence of such effects on site?

London Clay is well documented as experiencing shrinkage and swelling on change of moisture content. This aspect will be addressed further in the forthcoming Geotechnical Investigation. However, no such evidence was seen during the walk over survey.

Question 8: Is the site within 100 m of a watercourse or a potential spring line?

No. Refer to Section 3.1 Q2 above.

Question 9: Is the site within an area of previously worked ground?

The site is entirely within the curtilage of the present house.

Question 10: Is the site within an aquifer?

No. The underlying stratigraphy of London Clay is designated as Unproductive by the Environment Agency.

Question 11: Is the site within 50 m of the Hampstead Heath ponds?

No. The nearest ponds are approximately 1 km distant.

Question 12: Is the site within 5m of a highway or pedestrian right of way?

No. The development will take place at the rear of the property, some 26 m from the back of footway.

Question 13: Will the proposed basement significantly increase the differential depth of foundations relative to neighbouring properties?

The proposed development is on the far side of this pair of semi-detached houses, some 6 m from the party wall. The client will establish the depth of the foundations at the party wall and the forthcoming Geotechnical Investigation by AP Geotechnics will consider any requirement to mitigate differential movement.

Question 14: Is the site over or within the exclusion zone of any tunnels?

None known.

3.3
Surface flow and flooding screening

Question 1: Is the site within the catchment of pond chains on Hampstead Heath?

No. Reference to Arup[2] Figure 14 shows the site to be some 750 m south of the nearest catchment which is that for the Golders Hill chain.

Question 2: As part of the proposed site drainage, will surface water flows be materially changed from the existing route?

No. It is proposed to utilise the existing sewer network.

Question 3: Will the proposed basement development result in a change in the proportion of hard surfaced /paved external areas?

The proposals will add about 17 m^2 to the current footprint of hard surfacing of some 355 m^2, an increase of less than 5%.

Question 4: Will the proposed basement result in changes to the profile of the inflows of surface water being received by adjacent property or downstream watercourses?

No. Catchment and distribution routes will remain fundamentally unchanged.

Question 5: Will the proposed basement result in changes to the quality of surface water being received by adjacent properties or downstream watercourses.

The proposals will not affect water quality as all run off will discharge to the existing drainage network.

Question 6: Is the site known to be in an area at risk from surface water flooding?

The British Geology Survey rate the risk of groundwater flooding as very low. The site does not lie within a river flood plain. Bracknell Gardens is not listed as at risk from surface water flooding in CPG4.

A W Parr
AP GEOTECHNICS LTD.
20 March 2012

APPENDICES

A Photographs

Nos 17 (on left) and 19 Bracknell Gardens
Rear Elevation

B Figures

Figure B1: Existing ground floor plan
Figure B2: Existing side elevation
Figure B3: Proposed basement floor plan
Figure B4: Proposed basement section
Figure B5: Proposed rear elevation
Figure B6: Hydrogeology - Aquifer within bedrock geology

APPENDIX A

PHOTOGRAPHS

Nos 17 (on left) and 19 Bracknell Gardens

Rear elevation

APPENDIX B

FIGURES

17 Bracknell Gardens, Camden

Existing ground floor plan

Scale: Unknown

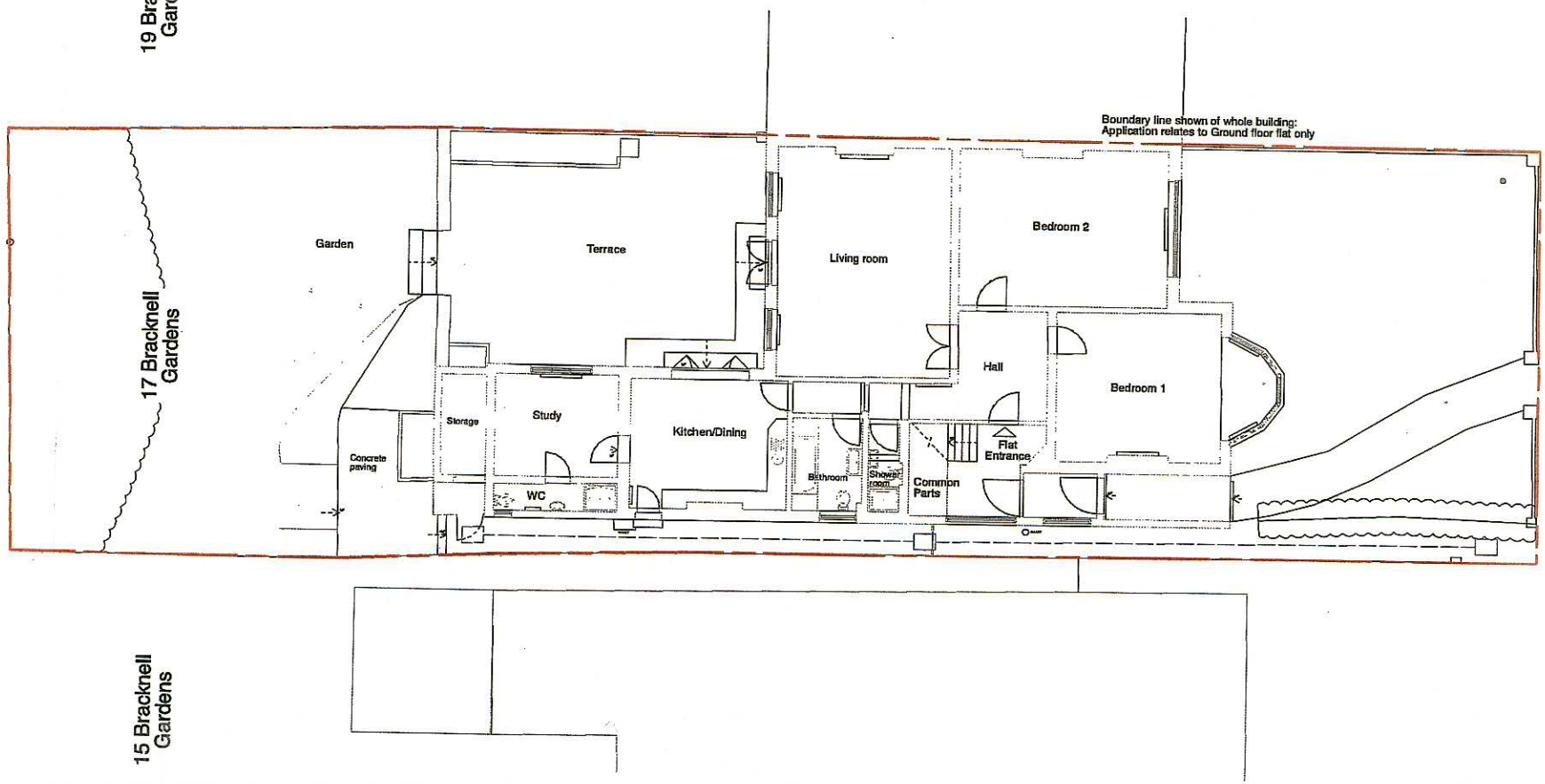

Figure B1

17 Bracknell Gardens, Camden

Existing side elevation

Scale: Unknown

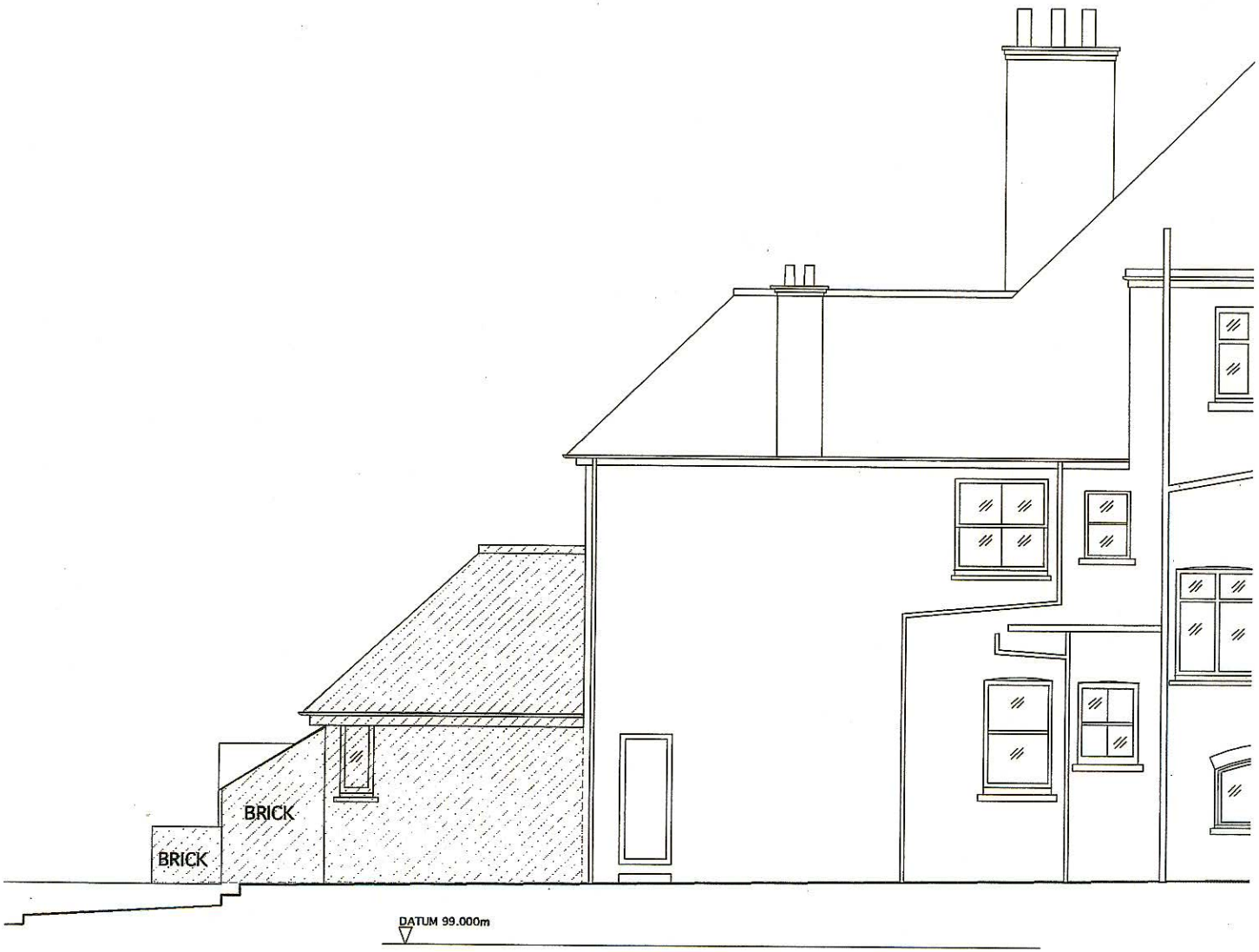

Figure B2

17 Bracknell Gardens, Camden

Proposed basement floor plan

Scale: Unknown

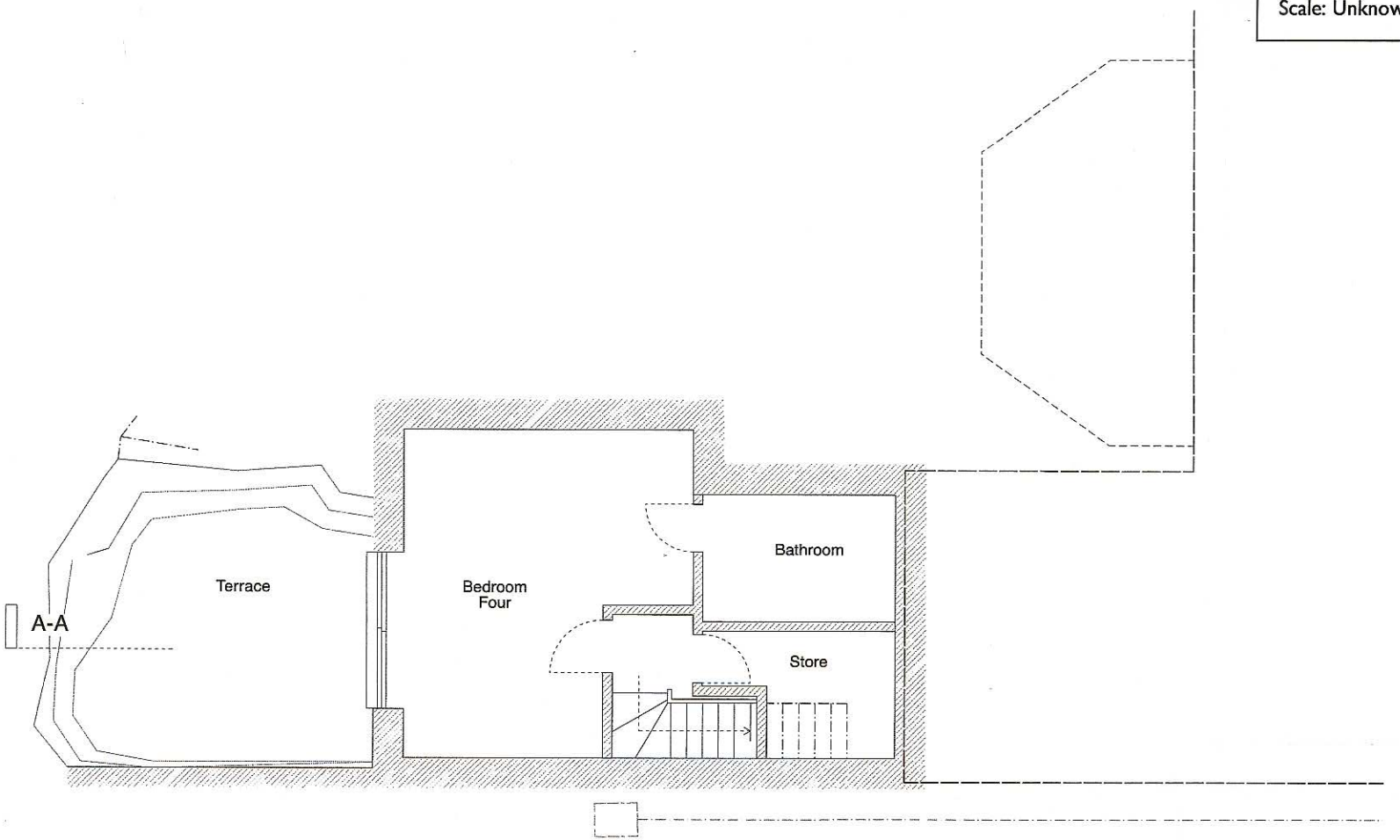

Figure B3

17 Bracknell Gardens, Camden

Proposed basement section

Scale: Unknown

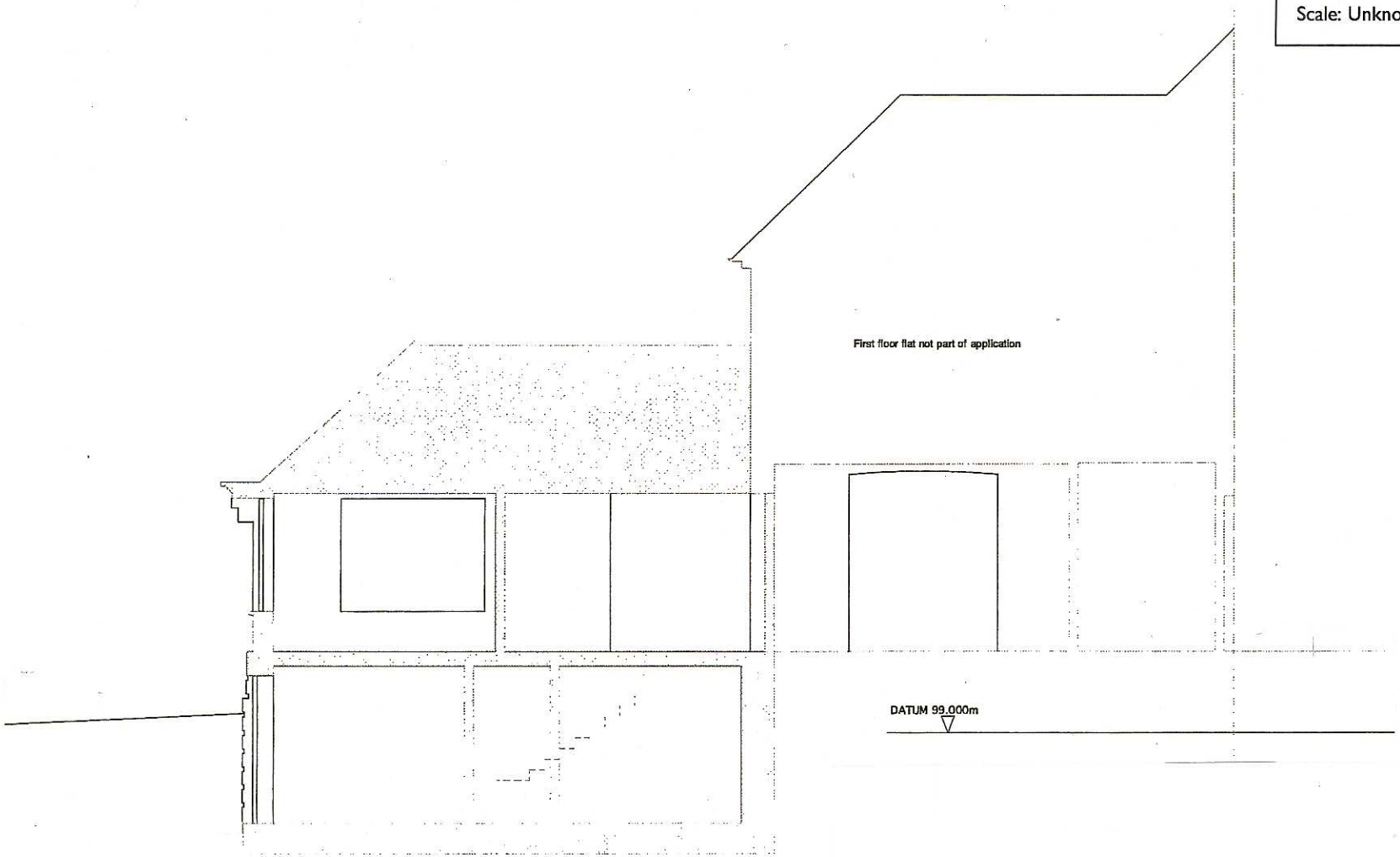

Figure B4

17 Bracknell Gardens, Camden

Proposed rear elevation

Scale: Unknown

Figure B5

17 Bracknell Gardens, Camden

Hydrogeology - Aquifer within Bedrock Geology

Scale: unknown

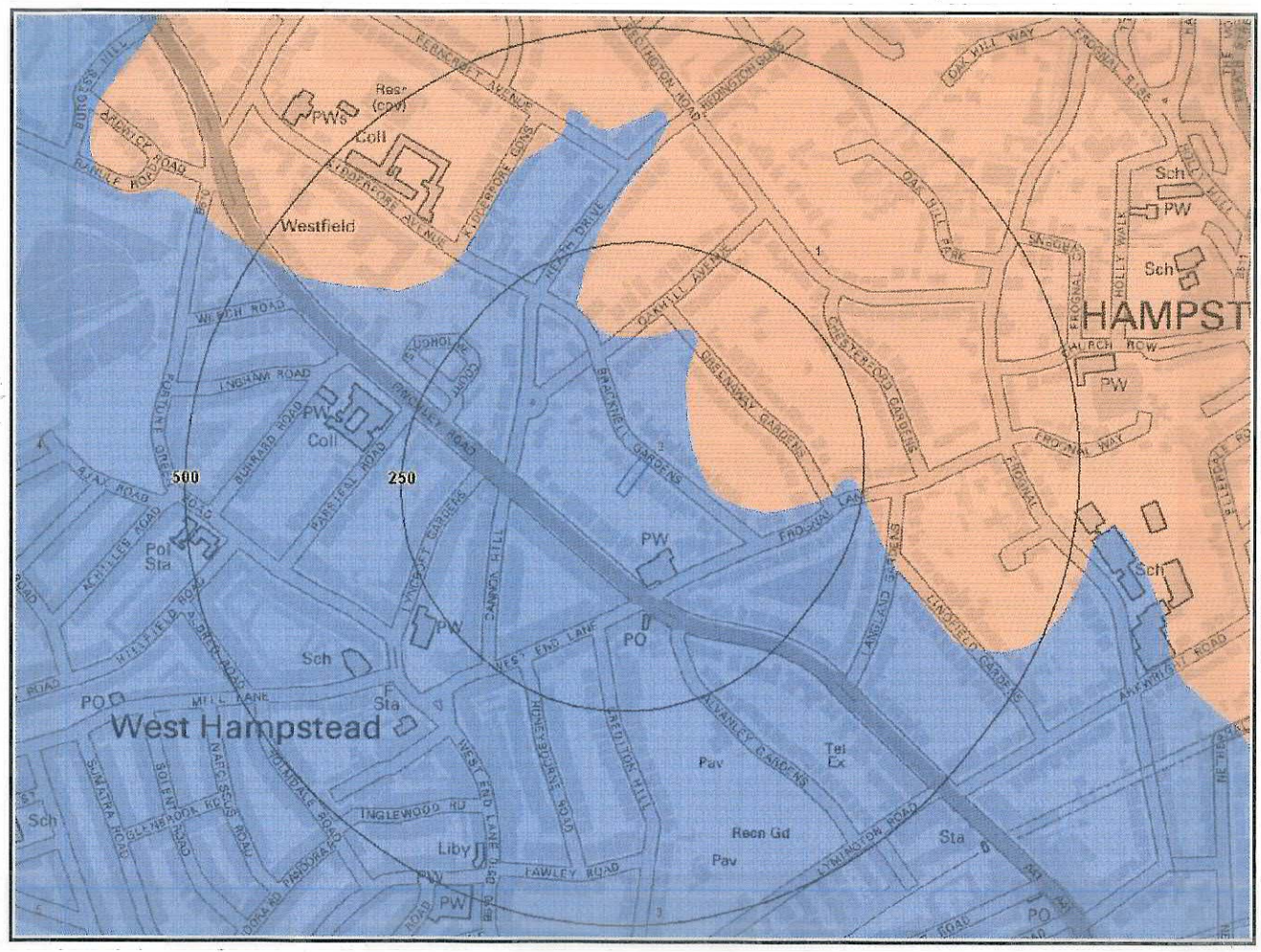

Figure B6