207 Sumatra Road, West Hampstead, London, NW 6 1 PF

CONSTRUCTION OF PROPOSED EXTENSION TO AN EXISTING BASEMENT.

Basement Impact Assessment

Prepared by Konstanty Zablocki B. Sc. (Hons.), C.Eng., MICE.

1.0 Available Information:

1.1 The property is a substantial terraced house built about 120 years ago on a residential estate and on a road close to a main road, the B510 West End Lane. It is just to the north of an east to west running over-ground railway line that serves the West Hampstead Thames-link station.
Recently, in 2014 / 5, planning permission was granted for a ground floor rear extension However, planning permission is now being sought for a full basement. The present basement is as for a traditional, Victorian property i.e. rectangular demise located directly under the ground floor hallway. This planning application seeks to extend the basement to the whole of the main demise of the existing house with light wells at the front and rear.

1.2 The site has a pronounced slope down from the front of the property towards the west. Towards the east, however, there is also a drop in level before the Hampstead escarpment is reached. This results in us assuming that this house is on a knoll. Furthermore, the railway track at the southern end of this area is at least 10, if not 12, metres sunken below the level of the rear back garden.

1.3 Site investigations were carried out by many different companies within this control area and 6 selected results are given in Appendix A.
From the printed pages, 5 locations (as it appears 2 and 4 are the same site but slightly different areas) envelope the site area. We can interpret the findings and apply them to our site as they straddle in all directions and the material does not differ significantly.
It is confirmed that brown London Clay overlies Grey / Blue London Clay, which drops to a significant depth and there are no lenses of sand or gravel or even silt in the top 8 metres. Consequently, the difficulties of working in ground that could be subject to excessive water penetration, soil instability and, thus, weakening the platform for construction is completely absent here. The clay will, in all probability, remain stiff, when exposed, for at least two weeks before drying out and it may even be difficult to excavate!

2.0 Extent of the Works:

2.1 The work involves the careful excavation with some demolition of the remaining untouched area where soil extends up towards the suspended ground floor timber joists. A complete external ring of underpinning is planned with works starting from the front of the house and extending to the rear zone.
A draft description of the works is given under the Basement Construction Method Statement which, as a document in its own right, accompanies this document.
The basement concrete floor will form an interlocking concrete " U " with the underpins and the waterproofing element of the new box will be formed inside to achieve habitable conditions. See Appendix C which gives waterproofing membrane details. Additionally, the ground floor structure will be strengthened with new steel beams and new timber joists (as required) so the ground floor forms a structural plate and the sub-structure will form a rigid box.

2.2 The existing plans and elevations together with the proposed plans and elevations are given under appendix D so that a greater appreciation of the extent and difficulties of forming this basement as a whole, habitable space can be ascertained.

2.3 Furthermore, photographs of the front basement access and the rear are given under Appendix E which add to the available information .

3.0 Ground Water, Slope Stability, Surface Flow and Flooding.

3.1 The following tables address the specific requirements of Camden's Planning Guidance with the following added information:--

3.2

Subterranean (ground water) flow

		Answers
Q1a	Is the site located directly above an aquifer?	No
Q1b	Will the proposed basement extended beneath the water table surface?	No
Q2	Is the site within 100m of a watercourse, well or potential spring line?	No
Q3	Is the site within the catchment of the pond chains on Hampstead Heath?	No
Q4	Will the proposed basement development result in a change in the proportion of hard surface/paved areas?	Yes. Well Areas.
Q5	As part of the site drainage will more surface water than at present be discharged to the ground?	No
Q6	Is the lowest point of the basement excavation close to or lower than the mean water level in any local pond or spring line	No

Q4 There will be an approximate increase of 4% in rear, hard surfaced areas (i.e. rear well area) which corresponds to a total proportion of only 4% of the present rear garden area being hard surfaced. These proportions are well below those permitted, generally. In addition there will be the area of the front light well and basement access that will be hard surfaced. Here the proportion increases from basement and ground access 5.93 m2 to 8.93 m2 when the whole area available at frontage is 13 m2. Proportion increase is from 45% to 69%. See photograph C

3.3

Slope stability screening flowchart

Q1	Does the site include slopes, natural or manmade, greater than 7^0?	No
Q2	Will the proposed re-profiling of landscaping at site change slopes at the property boundary to more than 7° ?	No
Q3	Does the development neighbour land, including railway cuttings and the like, with a slope greater than 7^0?	No
Q4	Is the site within a wider hillside setting in which the general slope is greater than 7^0?	No
Q5	Is London Clay the shallowest strata at the site?	Yes -see attached site investigation sheets.
Q6	Will any trees be felled as part of the development or are any works proposed within any tree protection zones where trees are retained?	No

Q7	Is there a history of shrink/swell subsidence in the local area or evidence of such effects on site	No.
Q8 Q9	Is the site within 100m of a watercourse or potential spring line Is the site within an area of previously worked ground	No No
Q10	Is the site within an aquifer	No
Q11	Is the site within 50m of the Hampstead Ponds	No
Q12	Is the site within 5m of a highway or pedestrian right of way	Yes
Q13	Will the proposed basement significantly increase the differential depth of foundations relative to neighbouring properties.	No. less than 1.4 metres assumed.
Q14	Is the site over or within the exclusion Zone of any tunnels	No

Q5 The borehole information selected close to this site is given under Appendix A. It confirms that the significant geological strata encountered for the whole of this area is monolithic brown and blue London Clay.

Q12 Sumatra Road and its associated footpath are within 3 metres of the principal front wall line so the construction of the nearest underpins and their back propping will need to be carefully carried out and the back propping established once the underpins are ready to resist road surcharge and soil active pressure etc.

3.4

Further notes : - As with most basement constructions, the foundations here will be up to 1.4m deeper than those of adjacent properties including the two party walls; in part. The party wall closest to the existing stair-well, which allows access from basement to second floor, will be deepened the least as it frames the existing shallow basement. All underpins will be reinforced concrete cantilever walls initially. They will have a minimum thickness of 200 mm as the basement slab.

The basement rear hard surfaced / paved area will add 4 % to the existing garden/rear extension layout which, we consider is insignificant for drainage run-off if not soaking into the soils.

The front garden at 13 m2 is also insignificant in size and the alteration of formation of well area of 3.0 m2 is small bearing in mind that the run-off from this zone will be into the existing surface water drainage via an existing gulley at the base of the existing basement entrance.

3.5 Surface Flow and Flooding

Q1	Is the site within the catchment of the pond chains on Hampstead Heath	No
Q2	As part of the proposed site drainage, will surface water flows (e.g. volume of rainfall and peak run-off) be materially changed from the existing route?	No
Q3	Will the proposed basement development result in a change in the proportion of hard surfaced/paved external areas?	Yes (see comments on Q4 above)
Q4	Will the proposed basement result in changes to the profiles of the inflows of surface water being received by adjacent properties or downstream watercourses?	No
Q5	Will the proposed basement result in changes to the quality of surface water being received by adjacent properties or downstream watercourses?	No

4.0 Design and Construction:

4.1 The nominal demolition and excavation works will not require scaffolding or any access into the neighbouring properties. All pinning and propping will be carried out from within the site demise. The basement works must not affect adjacent properties and the scheme as given in the Basement Construction Statement together with details within this document lead us to believe that works, if carried out closely to the traditional, classical method should be more than safe. It is always a good practice to involve the Neighbours and seek any permission that may be required or requested for the erection of protecting hoardings.

4.2 The walls of the basement will be designed as reinforced concrete cantilevers from a spread footing as illustrated in the documents. The design parameters for pressure on the walls will be in accordance with recommended values given in the Reinforced Concrete Designer's Handbook (by Charles E. Reynolds and James C. Steedman) for the relevant soil type. In addition it will be assumed that pressure from ground water could be present to a level of 0.75 of the depth of retained material; not initially but when the basement is completed..
The walls will also be designed to support a surcharge load of $10kN/m^2$ on the surface of the ground adjacent to the wall as well as the effects of pressure from any existing foundations. This surcharge will cover the nearness of stationary lorries by the house to take away skips and deliver concrete etc. Each wall section will be checked for overturning and sliding and reinforced as necessary where subject to tensile stresses.

4.3 The walls beneath the house will be constructed in traditional hit and miss lengths of generally not more than 1.2m with the top of the wall packed with mortar dry pack to the underside of the existing foundation. Adjacent lengths will be connected with steel dowel bars. It is anticipated that these walls will be cast against the face of the excavated soil.
The walls to the rear and side boundaries will be of similar construction except that the upper parts in top soil will require double shuttering. This procedure will maintain the stability of the ground and neighbouring properties at all times apart from minor disturbance of the soil at surface level.

4.4 The floor of the basement will be checked for uplift due to possible, eventual water pressure and designed to span between the walls etc. It is likely that the slab will require reinforcing on each face and, assuming confirmation of the ground conditions, it will probably be necessary to provide a layer of MOT type 1 compacted hardcore and a layer of blinding concrete before casting the basement well areas.

The ground floor construction will remain as is and be further supported with four number (at present) steel beams. This will allow the box shape of the basement to be completed.

4.5 Potential risks to structural instability, soil stability, unexpected discovery of water / sand lenses / poor existing below ground structures and so on, will be addressed on site as and when such improbable events occur.
The carrying out of the Construction Method Statement, building the basement box, as shown on the drawings and reinforcing the concrete as designed and shown in the future working drawings in a **piece small** method will ensure that all risks are mitigated at the outset and the level of risk will be to Burland Scale " 0 ". If any mentioned problems

arise for this site, our experience leads us to believe they will not be more significant than Burland Scale 1 at the most.

5.0 Flooding:

5.1 The site is not in a location that is subject to flooding and we have copied three sketches from the Geological Society's internet access to flood risk assessments for particular locations. The site is rated as a LOW RISK of flooding from the sea, the nearby rivers, rainfall and from reservoirs. All this information is given under Appendix B.

6.0 Springs:

6.1 Within the nearby 50 metre zone, it would appear that there are no likely water springs or excessive pressure leaking from trapped perched water tables etc. This can be attributed to the monolithic nature of the soil profile below 207 Sumatra Road.

7.0 Trees:

7.1 There are no trees growing to the front and only mature bushes at the rear and these are pruned regularly.
Trees will not cause difficulties in the formation and behavior of the basement.

8.0 Neighbouring Properties

8.1 The attached properties, as terraced housing, need to be checked for condition prior to works starting at 2207. The classical basement formation, as spelled out in the two documents herewith attached, should allow risk free construction if the method of working is followed exactly. Where deviations are necessary, then these should be discussed and the Design Chartered Engineer should check, based on the information available from the opened up site, that considered changes to the approved scheme can be made.

9.0 Surface Water:

9.1 The proposed basement extension is at a lower level than the existing basement which would not have been formed in Victorian times if the construction of such would have lead to large ingress of water or wall instability etc. The basement will not be influenced by the amount and rate of rainfall as it will be protected and any arisings taken to the sump area as shown on the Delta Membrane work sheets attached to Appendix C.

10.0 Monitoring:

10.1 Checking significant (> 3 mm) low level cracks to neighbouring two properties, if so agreed by the two party wall surveyors, will keep a record of any movements and can be actioned for repairs immediately.

APPENDIX A

British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Geology

Try the Beta v

Borehole Scans

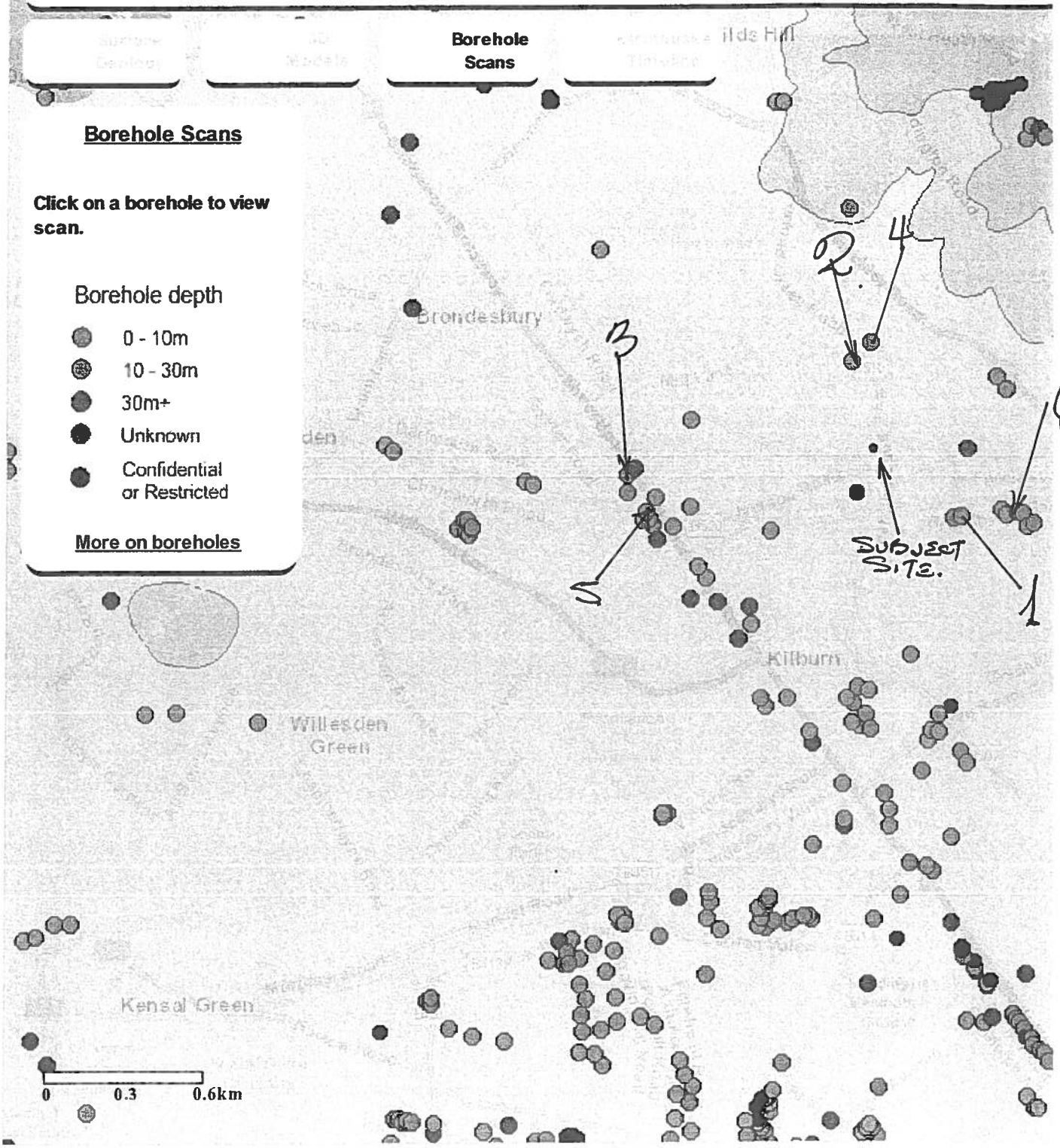
Borehole Scans

Click on a borehole to view scan.

Borehole depth

- 0 - 10m
- 10 - 30m
- 30m+
- Unknown
- Confidential or Restricted

More on boreholes



TQ 28SE | 519

BOREHOLE LOG

N.G.R. 2605. 8465

LOCATION No 973 Broadhurst Gardens

CARRIED OUT FOR Roff and Son Limited.

BOREHOLE No 10 DIAMETER: 6" - 4"

GROUND LEVEL: 152.5 DATE: 3rd to 8th May, 1951.

Description	O.S.D	Depth	Thickness	Depth to Water below Ground Level
Ground Level	152.5	0'0"		
Open Pit 5' x 5'			10'0"	
Fine, medium and coarse GRAVEL	142.5 142.2	10'0" 10'3"	0'3"	4.00pm.3.5.51 8'6" 10.00am.4.5.51 9'9" Pit was pumped out on 4th and 5th May.
Brown firm CLAY with blue fissures becoming firmer with depth and gradually changing to stiff grey CLAY. Gypsum crystals found between 15' and 20'.			12'9"	5.00pm.4.5.51 19'0" 8.00am.5.5.51 18'0"
	129.5	23'0"		
	128.0	24'6"	1'6" penetrated	5.00pm.5.5.51 23'0" 8.00am.7.5.51 22'0"
End of boring				5.00pm.7.5.51 23'0" 8.00am.8.5.51 23'0" 5.00pm.8.5.51 24'6"

FIG 6.

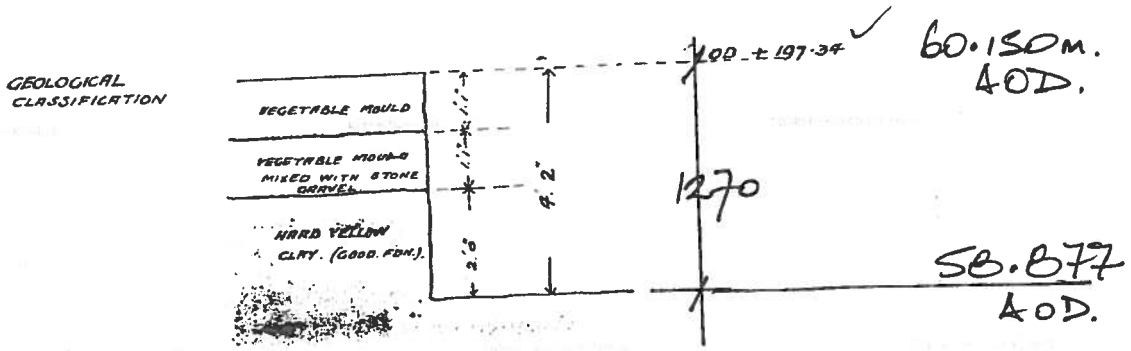
SCALE: 1cm = 2'6" ● DISTURBED SAMPLE ▌ UNDISTURBED SAMPLE

WEST END LANE. WEST HAMPSTEAD

FIRE BRIGADE STATION

SECTION Nº43

TOP STRATUM

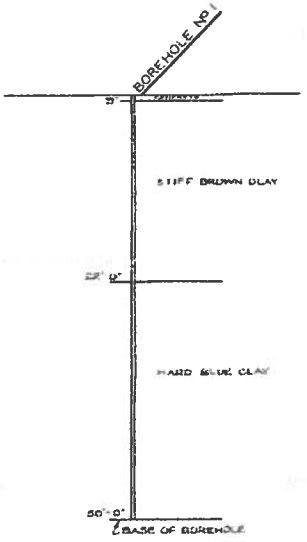


SCALE ½ INCH = 1 FOOT

TQ 28NE/32
2539.8519
256

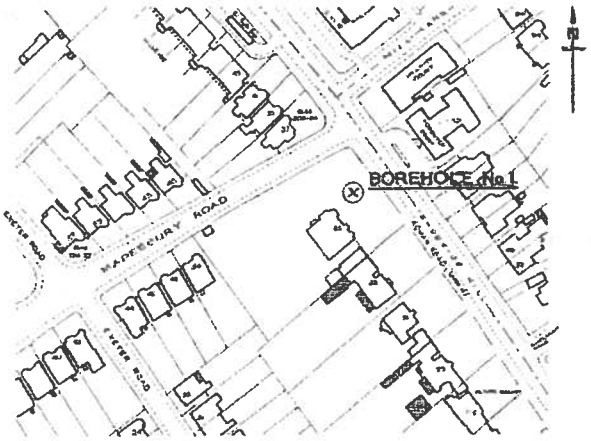
D/141·1/1.

DATE	AMENDMENTS	SIGNED



BOREHOLE SUNK 8TH MAY 1964.
DIAMETER OF BOREHOLE 6"
NO MOVEMENT OF GROUND WATER DISCOVERED
DURING DRILLING OPERATIONS.
SEE SITE INVESTIGATION REPORT No 693/14
MADE BY MESSRS TERRESEARCH LTD

DETAILS OF STRATA ENCOUNTERED
Scale:- 1/4" to 1'



SITE PLAN
Scale:- 1/1250
REFERENCE PLAN TQ 2484 N.W.

TQ28SW/85
2479 8496
256.

LONDON BOROUGH of BRENT

SITE INVESTIGATION WORK
AT
MAPESBURY ROAD
WILLESDEN

C.W. STEEDMAN, A.M.I.C.E., F.I.M.H.E., M.T.P.I., M.R.S.H.E.
BOROUGH ENGINEER & SURVEYOR

DATE APRIL '65

DESIGNED		TRACING No. T/141·1/1
DRAWN	ADGS	
TRACED	SH	DRAWING No. D/141·1/1
CHECKED		

BGS ID: 590601 : BGS Reference: TQ28NE21
British National Grid (27700) : 525460,185260
Report an issue with this borehole

4.

GEOLOGICAL SURVEY OF GREAT BRITAIN

RECORD OF SHAFT OR BORE FOR MINERALS

(For Survey use only)
6-inch Map Registered No.
TQ 28 NE/21

Name of Shaft or Bore given by Geological Survey:

Name and Number given by owner: B.S. The Cock and Hoop

For whom made

Town or Village St John Hampstead County

Exact site Nest End Lane. { Attach a tracing from a map, or a sketch-map, if possible.

Nat. Grid Reference 2546. 8526

1" N.S.Map No.	1" O.S.Map No.	Confidential or not
256.		

Purpose for which made Tube

Ground Level at shaft bore relative to O.D. 197.34 If not ground level give O.D. of beginning of shaft bore

Made by Date of sinking

Information from L.C.C. Date received

Examined by

SPECIMEN NUMBERS AND ADDITIONAL NOTES

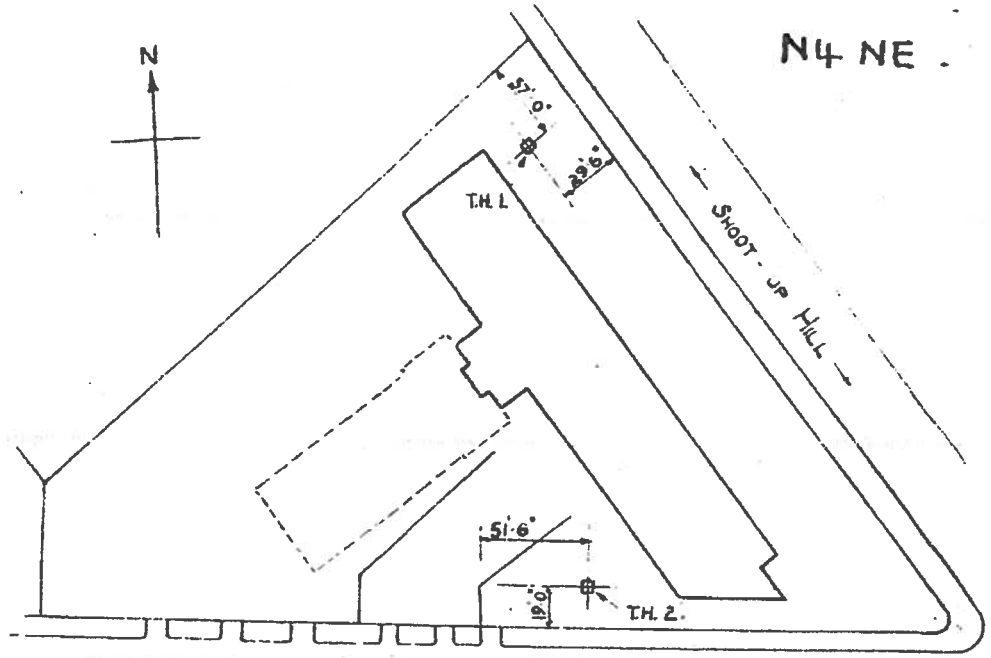
(For Survey use only) Geological Classification	DESCRIPTION OF STRATA	Thickness Ft.	Thickness In.	Depth Ft.	Depth In.
	Vegetable Mould	1	1		
	Vegetable Mould with stone gravel.	1	1	2	2
	Hard yellow clay	2	0	4	2

Op.863

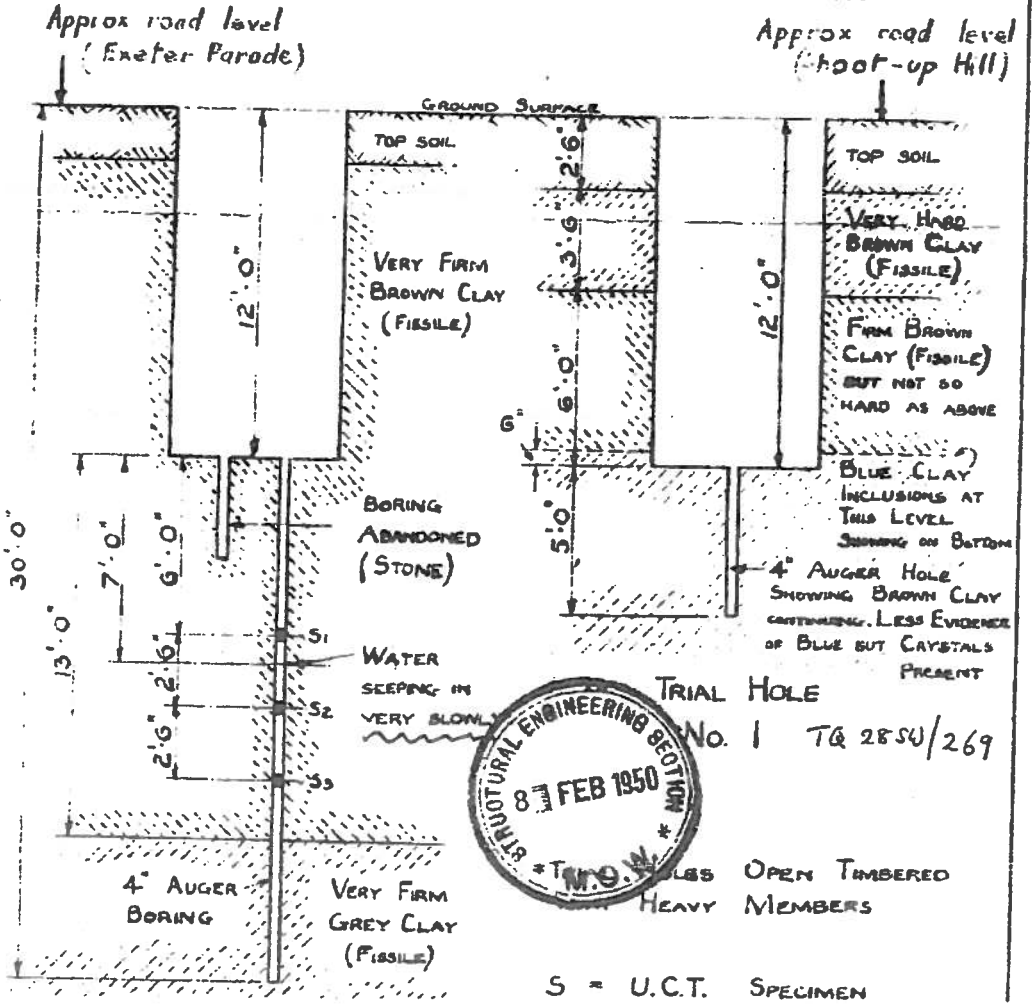
5.

* TQ 28 SW/269-270 N.3189

INSPECTED BY D.W.C. on 3-8-49 & 5-8-49



SITE PLAN — EXETER PARADE —



TQ 28 SE/[redacted]

6

BOREHOLE LOG 1" : 25

LOCATION No 973 Broadhurst Gardens

CARRIED OUT FOR Roff and Son Limited. TQ 28 SE/514

BOREHOLE No 1 DIAMETER: 6" - 4" N.G.R. 2579. 8462

GROUND LEVEL: 152.0 DATE: 9th May, 1951.

Description	O.S.D.	Legend/Sample	Depth	Thickness	
					974 M.
Made ground.	152.0		0'0"		GROUND 46.330
	150.0	● 1	2'0"	2'0"	
Soft to firm red-brown mottled CLAY gradually changing to brown and grey mottled CLAY & few gypsum crystals at 12'9".		● 2 ■ 3			Borehole dry
		■ 4		7'0"	3.912m.
		■ 5	9'0"		
		■ 6		3'9"	
	139.2	■ 7	12'9"	pene-trated	42.418.
	End of Borehole				

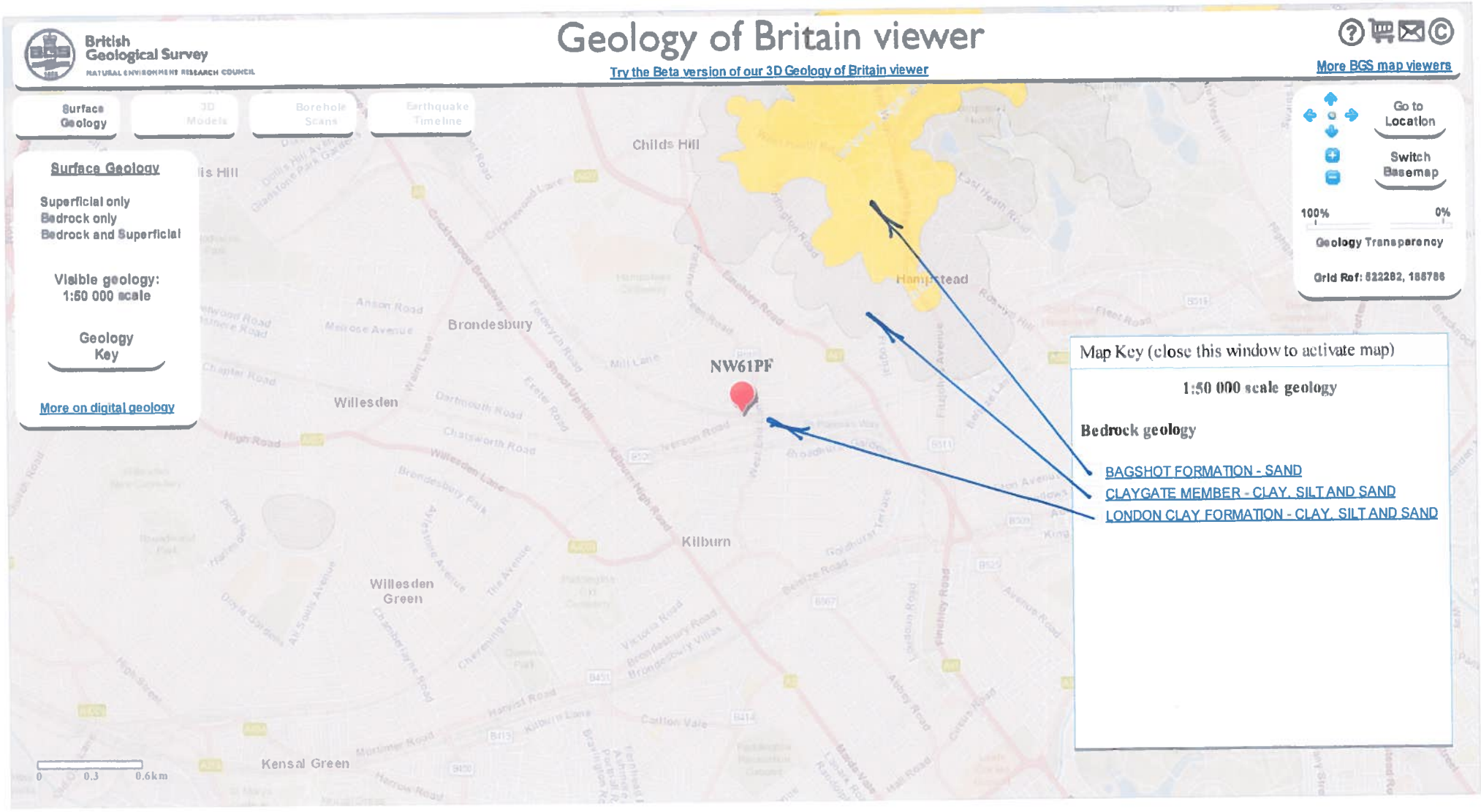
SOFT TO FIRM RED-BROWN MOTTLED CLAY GRADUALLY CHANGING TO BROWN AND GREY MOTTLED CLAY.

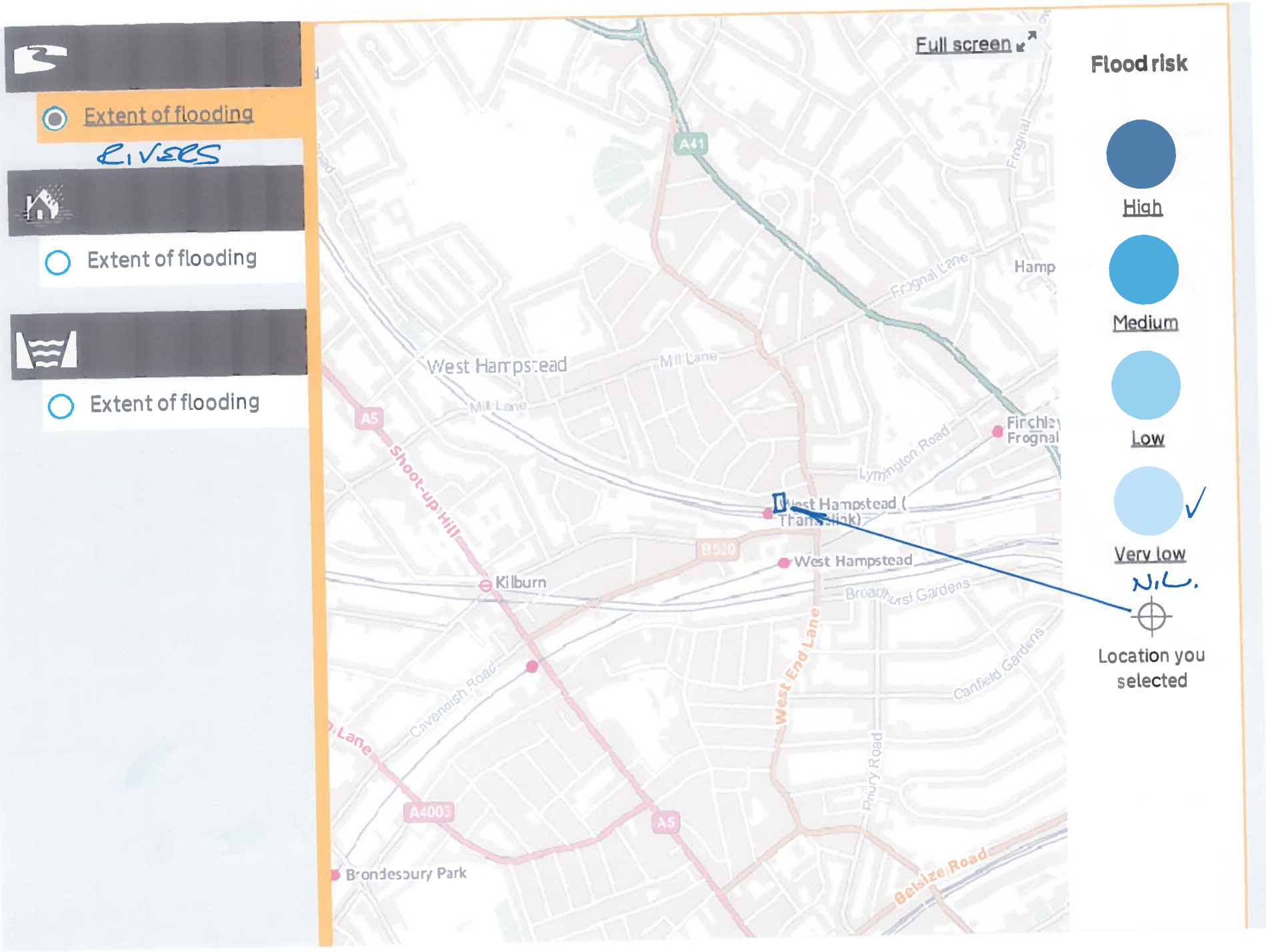
A FEW GYPSUM CRYSTALS AT 42.418m. A.O.D.

FIG. 1

SCALE: 1cm = 2'0" ● DISTURBED SAMPLE ■ UNDISTURBED SAMPLE

APPENDIX B


British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL
Geology of Britain viewer
Try the Beta version of our 3D Geology of Britain viewer
More BGS map viewers
Surface Geology
3D Models
Borehole Scans
Earthquake Timeline
Surface Geology
Superficial only
Bedrock only
Bedrock and Superficial
Visible geology: 1:50 000 scale
Geology Key
More on digital geology
Go to Location
Switch Basemap
100%
0%
Geology Transparency
Grid Ref: 522282, 186786
Childs Hill
Hampstead
Brondesbury
NW61PF
Willesden
Kilburn
Willesden Green
Kensal Green
0
0.3
0.6km
Map Key (close this window to activate map)
1:50 000 scale geology
Bedrock geology
BAGSHOT FORMATION - SAND
CLAYGATE MEMBER - CLAY, SILT AND SAND
LONDON CLAY FORMATION - CLAY, SILT AND SAND

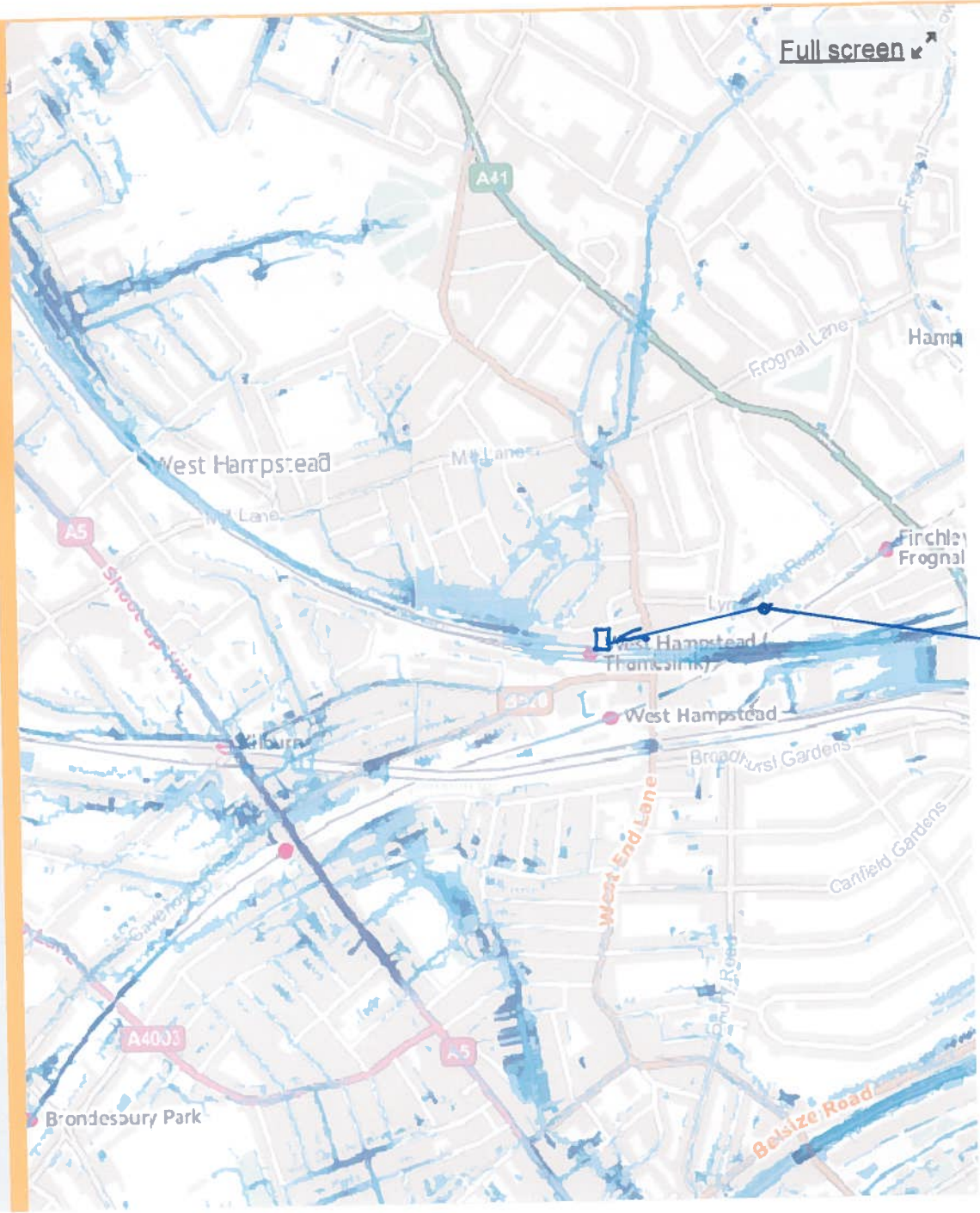

Extent of flooding
RIVERS
Extent of flooding
Extent of flooding
Full screen
Flood risk
High
Medium
Low
Very low
N.L.
Location you selected
A41
West Hampstead
Mill Lane
A5
Shoot-up Hill
Kilburn
B520
West Hampstead
Broadhurst Gardens
West End Lane
Cavendish Road
A4003
Brondesbury Park
Priory Road
Belsize Road
Canfield Gardens
Lymington Road
Frognal
Frognal Lane
Hamp

Extent of flooding

Extent of flooding

SURFACE WATER

Extent of flooding



Flood risk

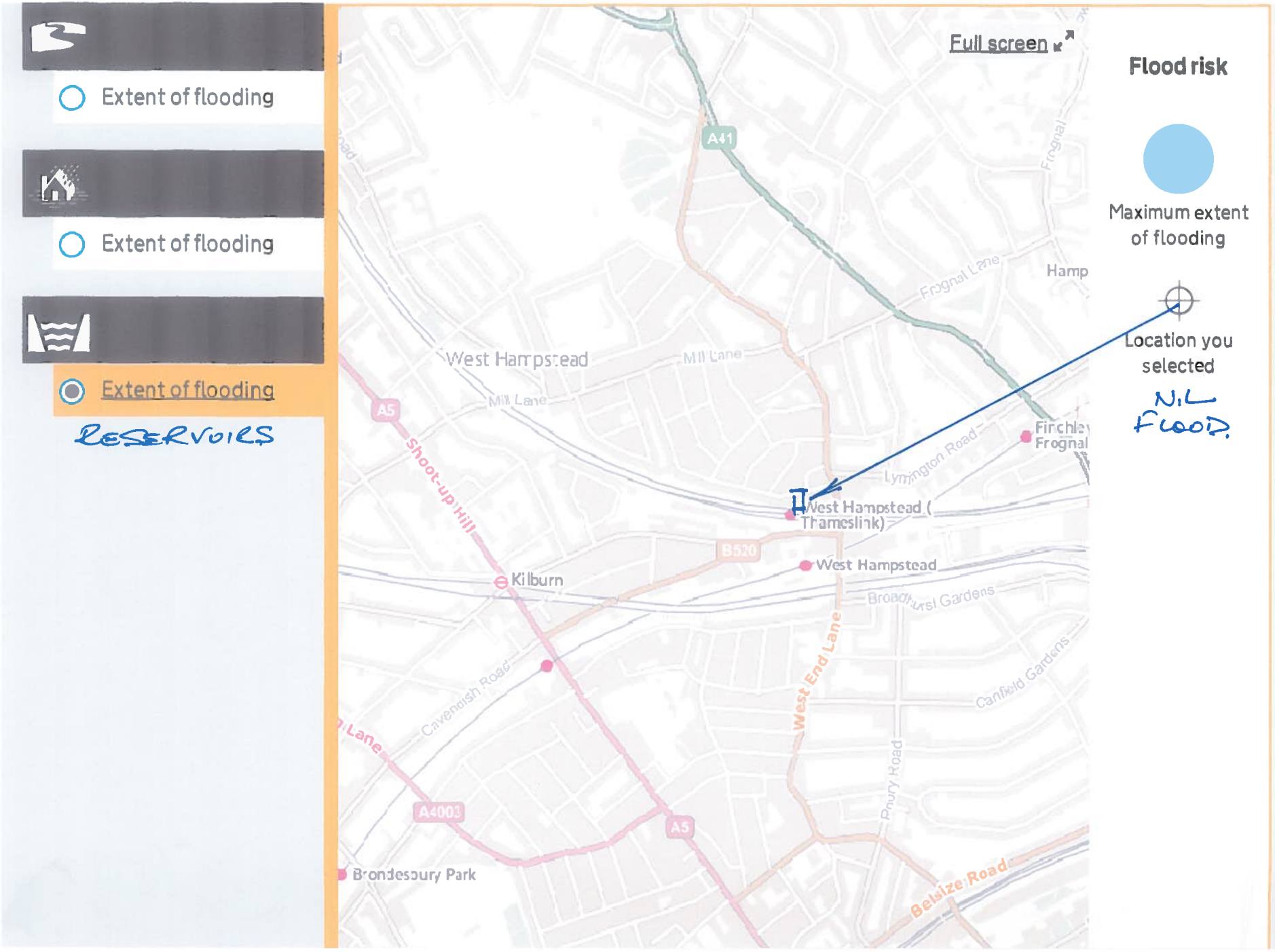
High

Medium

Low

Very low

Location you selected


Extent of flooding
Extent of flooding
Extent of flooding
RESERVOIRS
Full screen
Flood risk
Maximum extent of flooding
Location you selected
NIL FLOOD
A41
West Hampstead
Mill Lane
Frognal Lane
Hamp
A5
Shoot-up Hill
Lymington Road
Finchley Frognal
West Hampstead (Thameslink)
B520
West Hampstead
Kilburn
Broadhurst Gardens
West End Lane
Canfield Gardens
Cavendish Road
Priory Road
A4003
Brondesbury Park
Belsize Road

APPENDIX C

DELTA membrane systems

Search website here

CE

01992 523 523

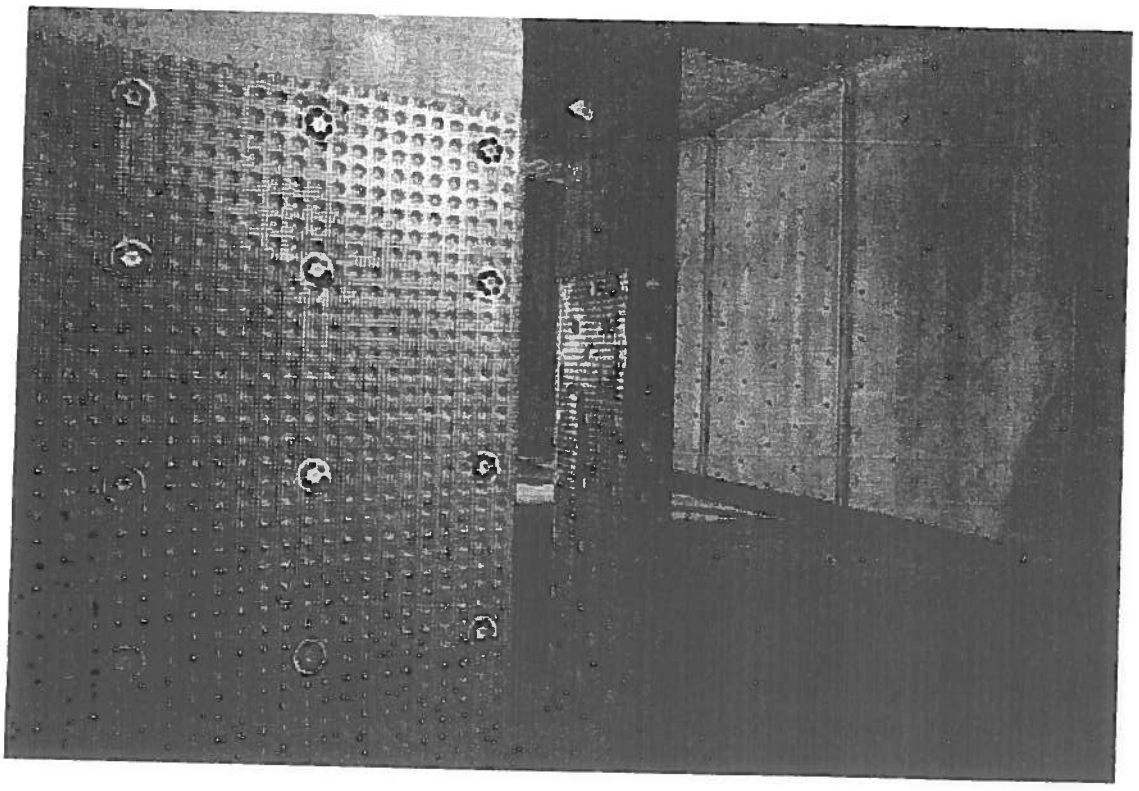
MENU

Internal Waterproofing

Internal Waterproofing

DELTA offer a range of internal waterproofing products and systems, to not only stop water from entering your basement/property but also to manage and control it.

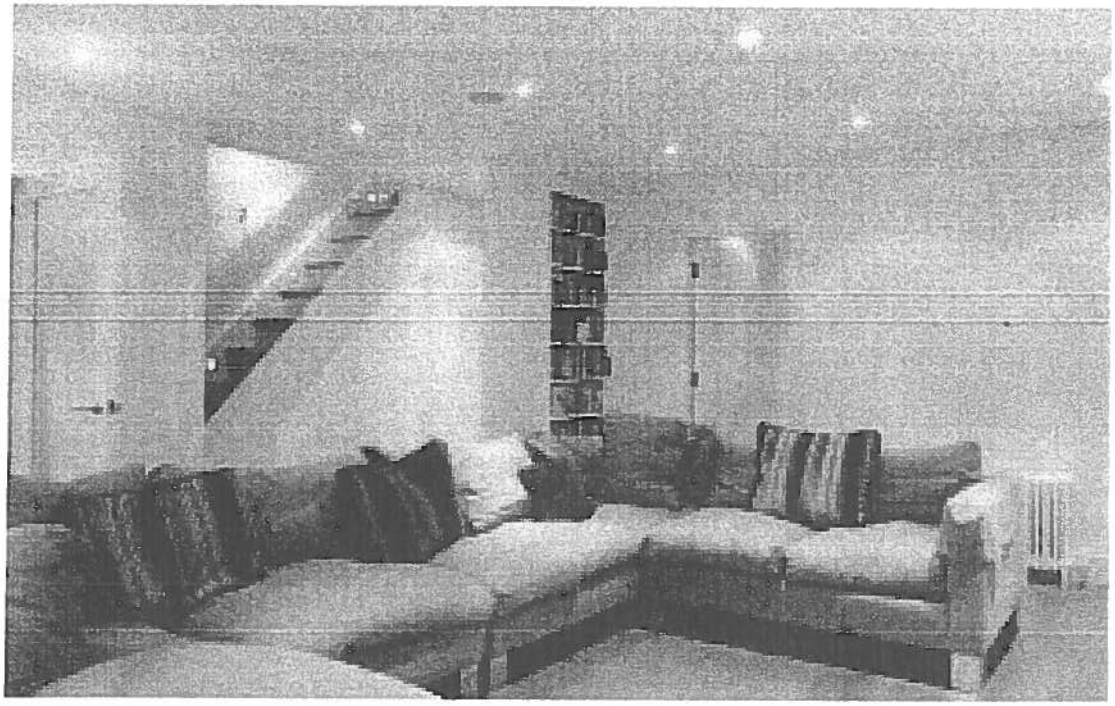
The DELTA internal 'Type C' waterproofing system consists of two main components, the cavity drain membranes, and the specialist drainage, such as sump pump stations, perimeter drainage channels, or our 129 drainage detail. (Technical details at bottom of this page)



The cavity drain membranes act as the internal barrier that is wrapped around the walls, laid across the floor and sealed using the Delta systems range of adhesive products. The studded profile on these membranes create a cavity that allows water/water vapour to collect and drain to a drainage system i.e. sump pumps.

There are two main types of specialist drainage systems, the perimeter channel system, and our 129 drainage detail, which is designed into the new slab using 110mm drainage pipe, with upstands, one inlet for every 12m² of floor area, (See technical drawings below). The water is drained to one of our sump-pump stations that pumps the water out of the basement externally.

As well as waterproofing existing basements, DELTA products can also be used in new construction. Properties undergoing refurbishment frequently have basements that will need upgrading so they can become drier and then converted into there desired room. These basements may be used for storage, offices, bedrooms, games rooms, toilets, etc. which all require different levels of dryness. Buildings/structures aren't always dry, water and water vapour will always exist.

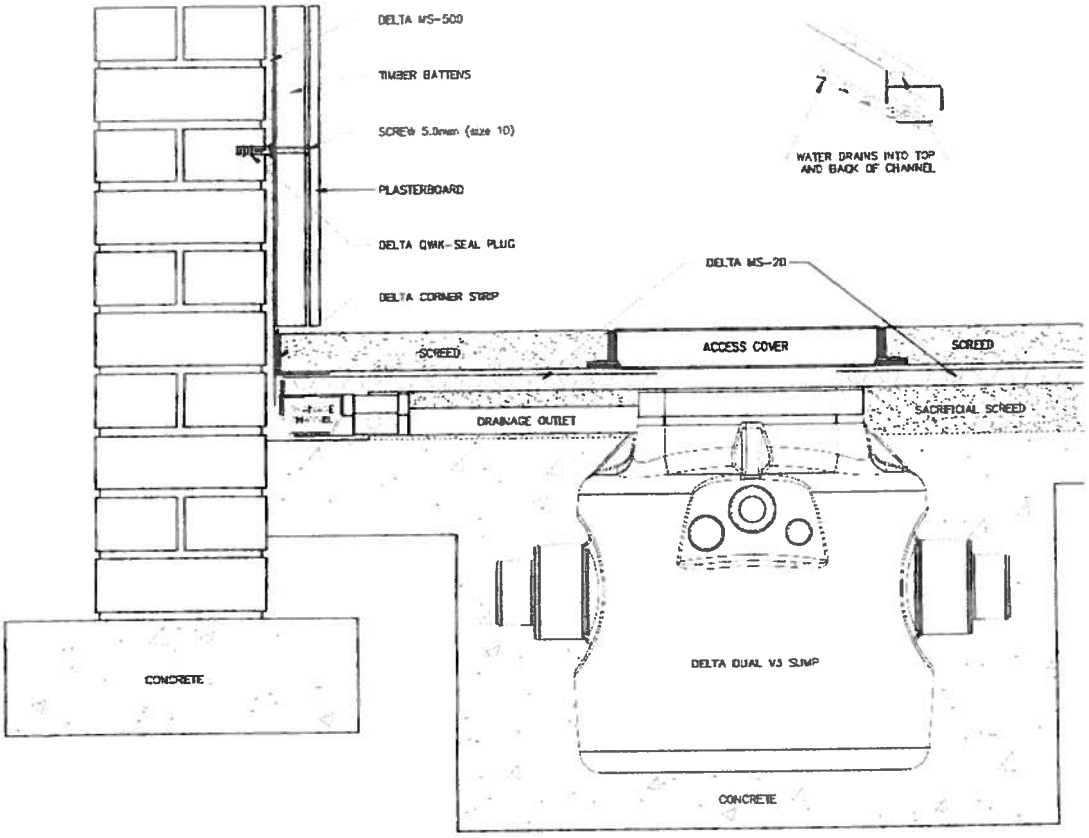


To make your basement fit for refurbishment you must have control of the moisture and water that's in the actual building structure and also the humidity and temperature, each of these will prove vital to rid your basement of any dampness and maintain a dry building. To achieve this you need to apply a waterproof coating inside the walls and floors, this needs to be done before insulation or decorating. Once the room is waterproofed/damp-proofed the air needs conditioning to maintain the right levels of humidity through sufficient ventilation or air conditioning. If this specification is not met then any moisture in the home will cause the humidity levels to rise.

Areas below ground level are prone to condensation, occurring on the coolest surface so steps must be taken to prevent condensation causing problems. DELTA have the right products for all your needs.

Typical detail of our internal 'Type C' waterproofing system

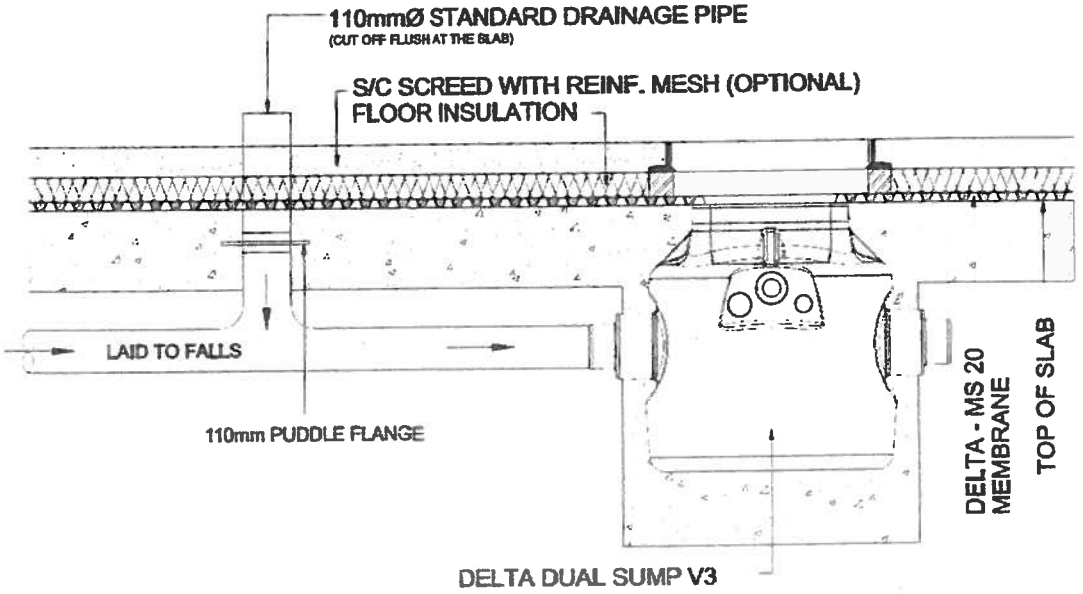
DELTA®-MS500 on the walls fixed with Qwik-Seal Plugs, DELTA®-MS20 on the floor, both sealed with Tape and Corner strip at the joints. DELTA Drainage Channel is installed around the perimeter of the room collecting the ground water draining away to a Dual V3 Sump Pump. (Click image below to view technical detail)



Maintenance

Maintenance of Type C systems and most important pump maintenance is essential and regular servicing is required to ensure pumps do not fail and the cavity membrane does not block. Potential build up of free lime could occur especially where new concrete is present in the basement construction, this can be treated with an anti lime primer as part of a Type A system. Built into the drainage design flushing ports and access panels are to be incorporated at the required points, ask a member of our technical team for specific detailing. Click here to view our flushing port/access panel detail.

DELTA floor drain design 129 using 110mm soil pipe – drainage points across slab (click image below to view full technical detail)



DETAIL - SUMP CONNECTION TO FLOOR DRAIN WITH PUDDLE FLANGE

For any queries on cellar drainage equipment, basement waterproofing solutions or structural waterproofing systems please contact us.

Get in touch

Our teams accreditations

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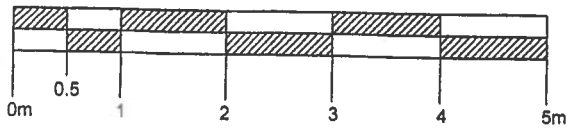
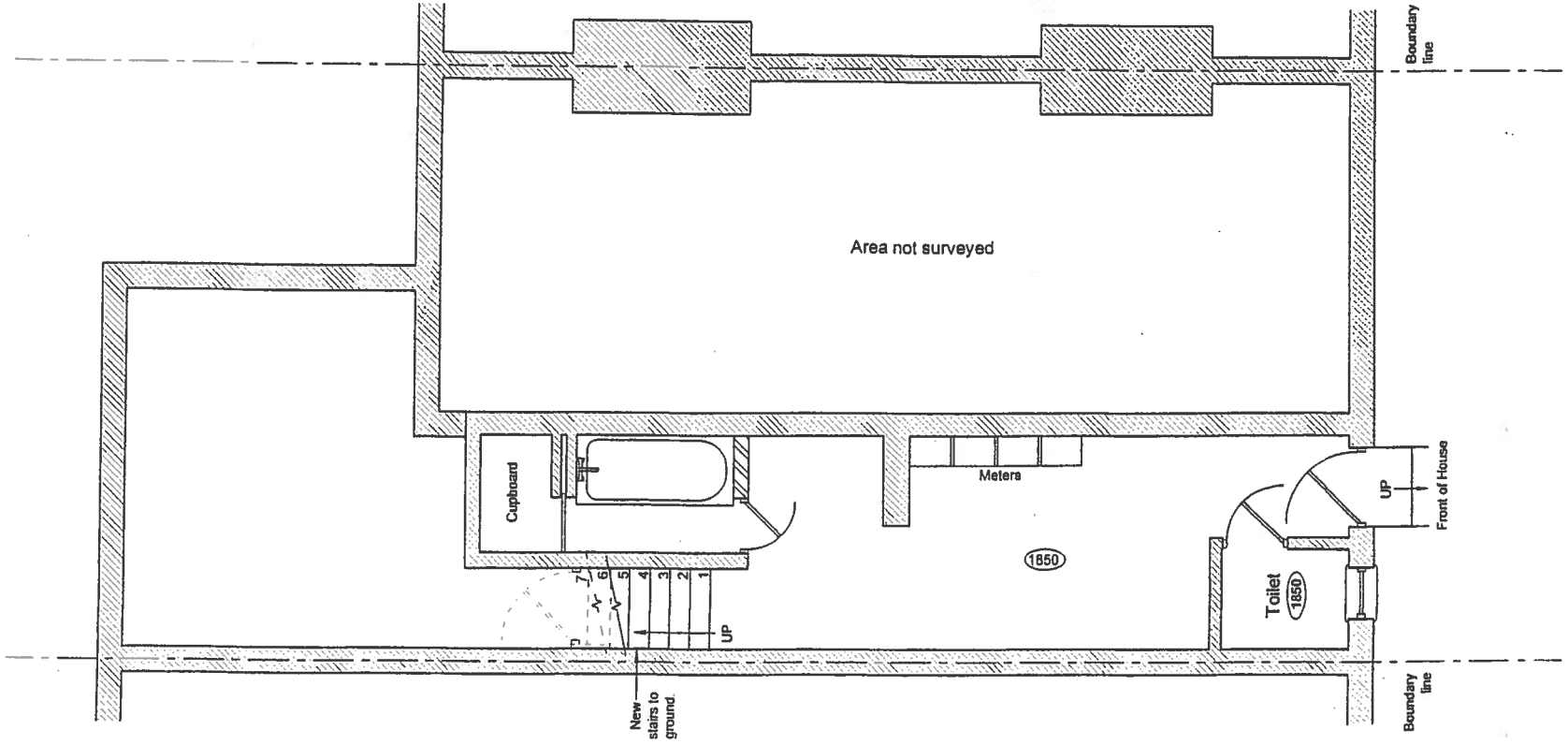
APPENDIX D

Scale 1: 50 @A3



Notes:

1. This drawing to be read in conjunction with all other Architect's drawings, specification given on 09, and all other structural, electrical and mechanical drawings.
2. See elevations for details of windows and doors.
3. All new works to outside of existing house to match existing materials exactly.



Existing Basement Layout

Scale 1:50 @A3

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Job title
Redevelopment at
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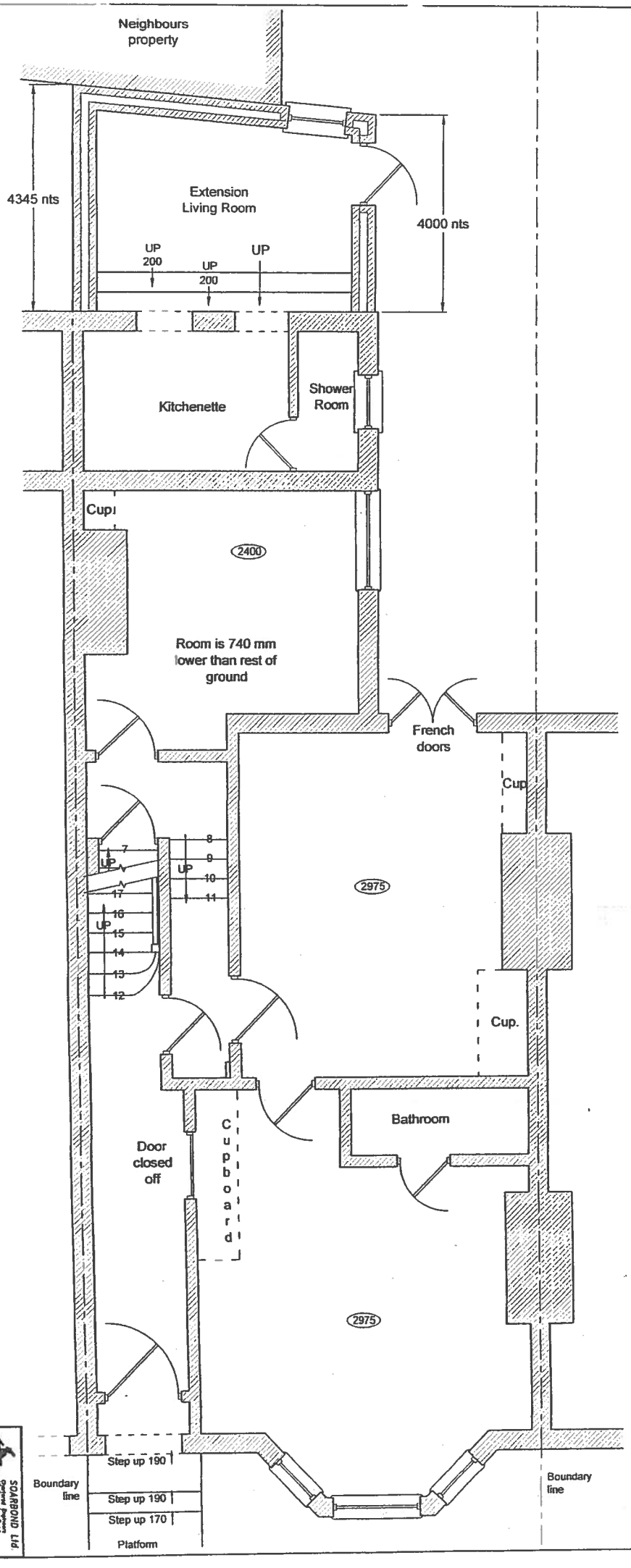
West Hampstead
London NW6 1PF

Drawing title
Existing Basement Layout

Client
Professor Kerry Hamilton

Drawn by:	Date
P. Obrzut	August 2017
Ch'k'd	Date
W.K.J. Zablocki	August 2017
Job number	Scale @ A3
1381	1 : 50

Drawing number
1381 – 01



Existing Ground Floor Layout

Scale 1:50 @A3

Scale 1: 50 @A3

0m 0.5 1 2 3 4 5m

Notes:

1. For general notes see drawing 1381 - 01.

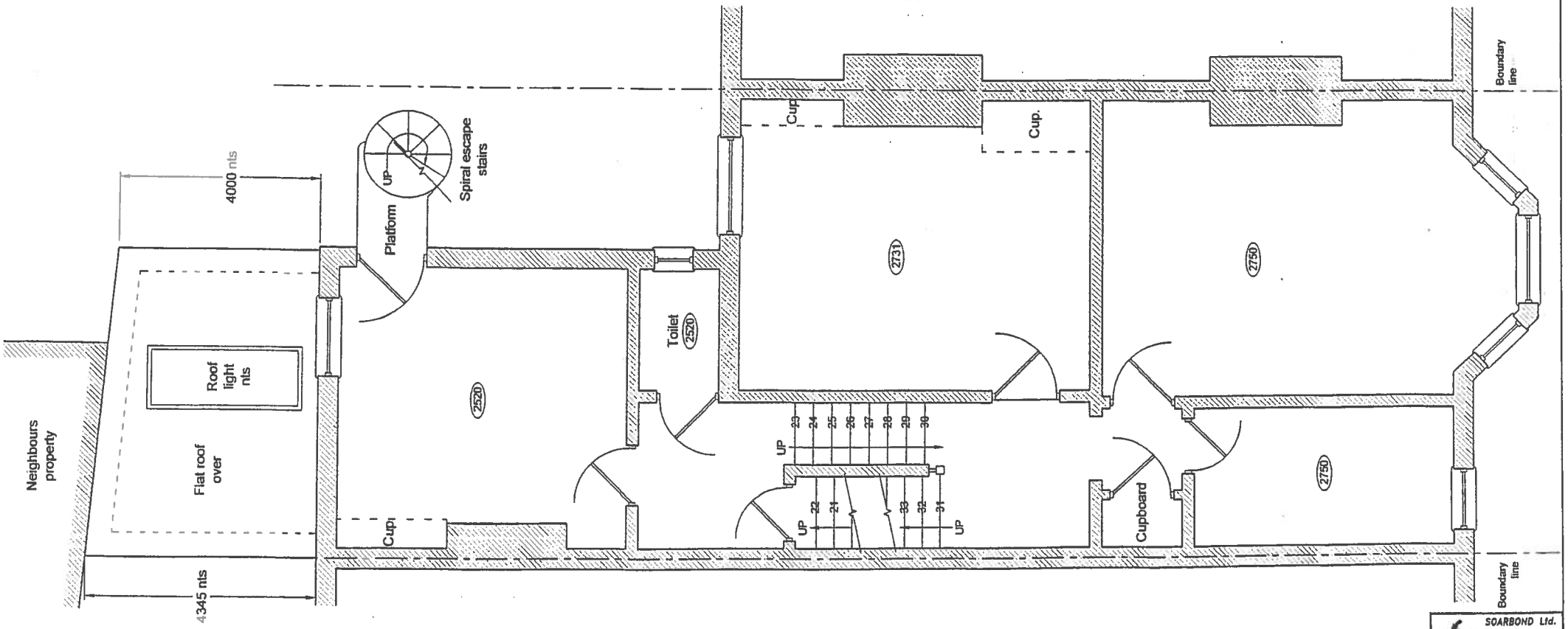
Job title	Redevelopment of 207 Sumatra Road West Hampstead London NW6 1PF
Drawing title	Existing Ground Floor Layout
Client	Professor Kerry Hamilton
Drawn by	P. Obrzut
Date	August 2017
Check	W.K.J. Zabicki
Date	August 2017
Job number	1381
Scale @ A3	1 : 50
Drawing number	1381 – 02

SOARBOND Ltd

Scale 1: 50 @A3

0m 0.5 1 2 3 4 5m

Notes:
1. For general notes see drawing 1381 - 01.



Existing First Floor Layout
Scale 1:50 @A3

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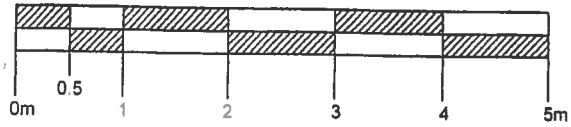
Drawing title
Existing First Floor Layout

Client
Professor Kerry Hamilton

Drawn by	Date
P. Obrzut	August 2017
Chk'd	Date
W.K.J. Zablocki	August 2017
Job number	Scale @ A3
1381	1 : 50

Drawing number
1381 - 03

Scale 1: 50 @A3



Notes:

1. For general notes see drawing 1381 - 01.

Materials Legend:

1/. fair face brickwork

2/. pebble dash or render

3/. roofing tiles or slates

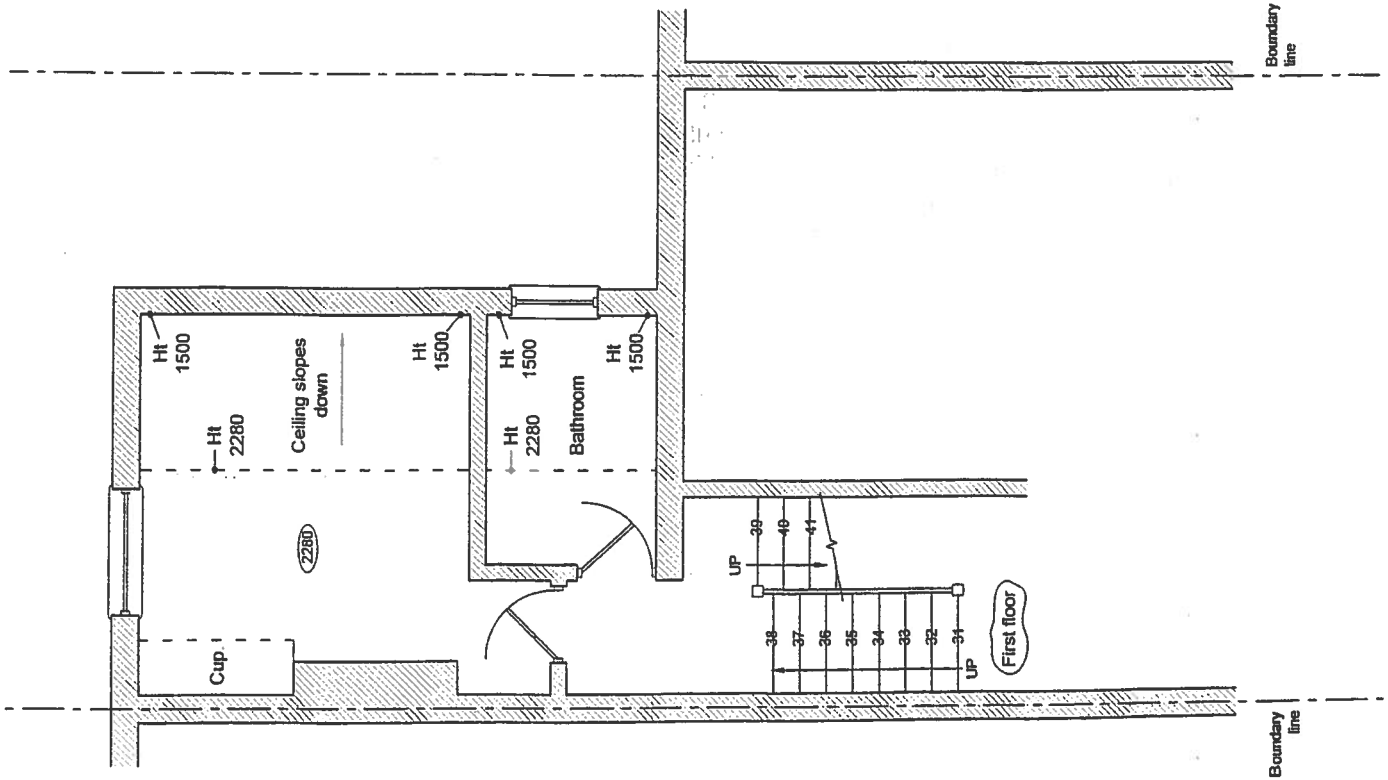
4/. half round piping bedded in sand cement as roof hip finish

5/. guttering

6/. indicates existing or proposed walling - 225 mm solid brick, 103 skin of brickwork or light weight breeze or block walling

7/. Indicates 300 mm cavity walling

8/. indicates steel beams in floor above to support floors and walling.



Existing First To Second Floor
Half Landing In Outrigger
Scale 1:50 @A3

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Drawing title
Existing First to Second Floor
Half Landing In Outrigger

Client
Professor Kerry Hamilton

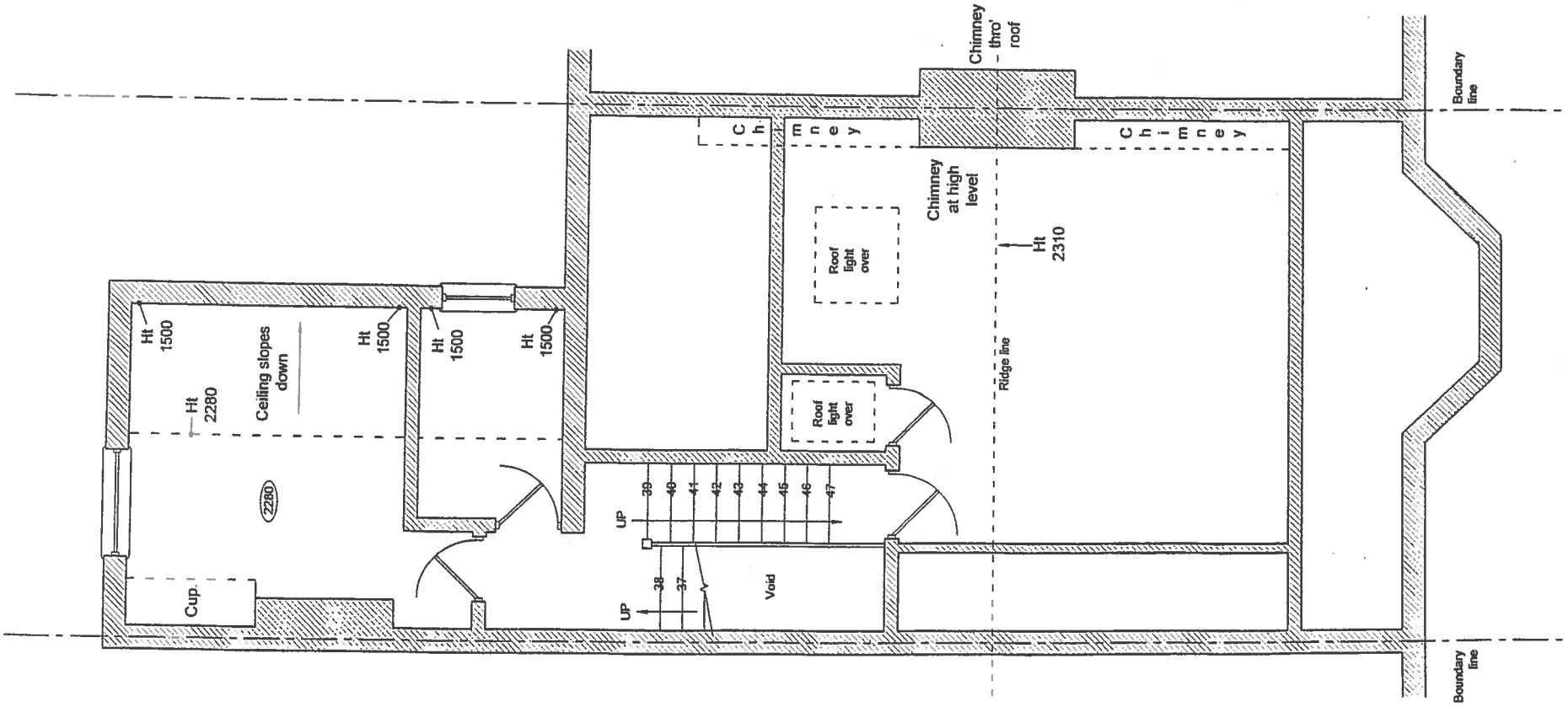
Drawn by	Date
P. Obrzut	August 2017
Chk'd	Date
W.K.J. Zablocki	August 2017
Job number	Scale @ A3
1381	1 : 50

Drawing number
1381 – 04

Scale 1: 50 @A3

0m 0.5 1 2 3 4 5m

Notes:
1. For general notes see drawing 1381 - 01.



Existing Second Floor Layout
Scale 1:50 @A3

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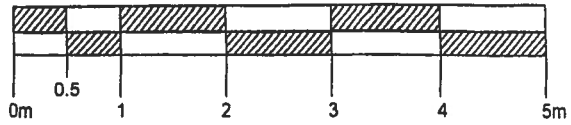
Drawing title
Existing Second Floor Layout

Client
Professor Kerry Hamilton

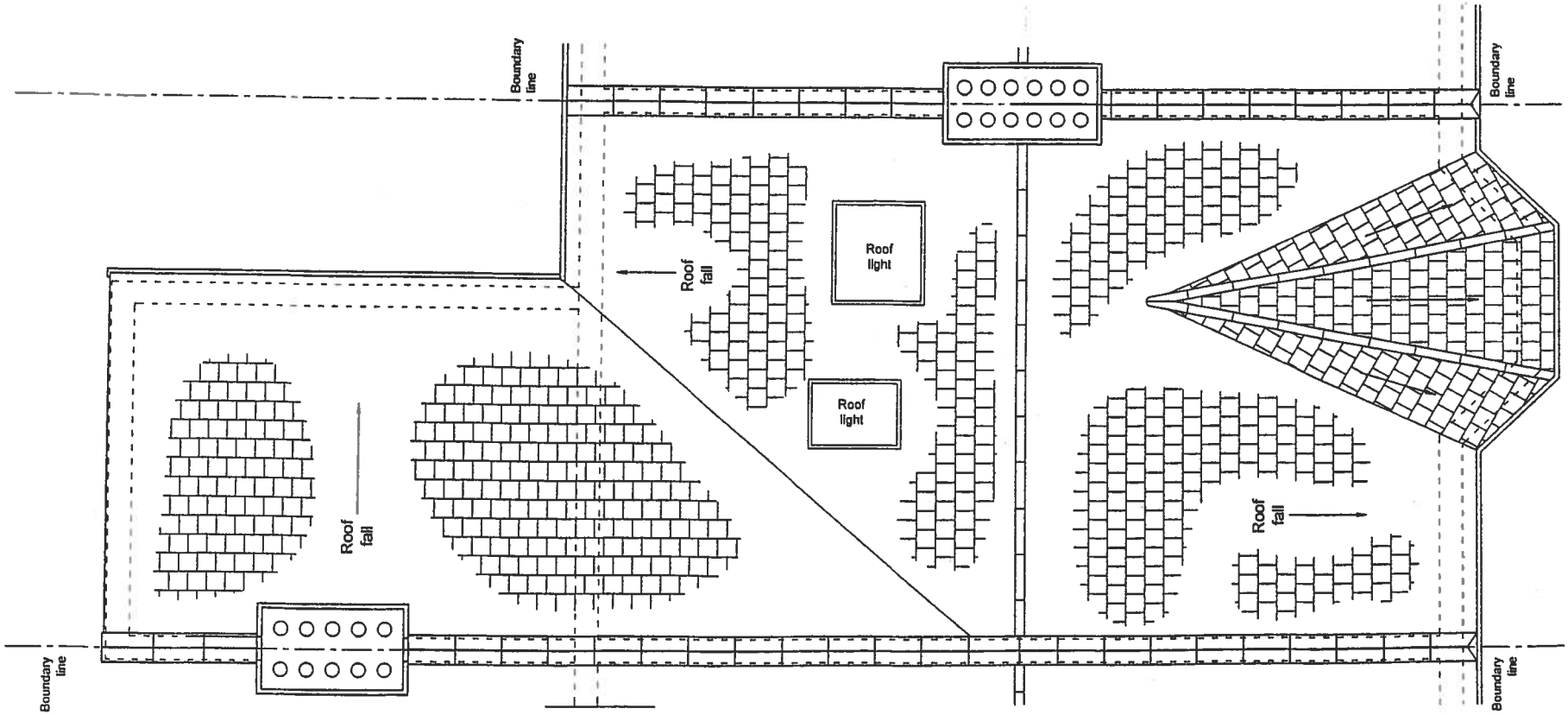
Drawn by	Date
P. Obrzut	August 2017
Ch'd	Date
W.K.J. Zablocki	August 2017
Job number	Scale @ A3
1381	1 : 50

Drawing number
1381 – 05

Scale 1: 50 @A3



Notes:
1. For general notes see drawing 1381 - 01.



Existing Roof Plan
Scale 1:50 @A3

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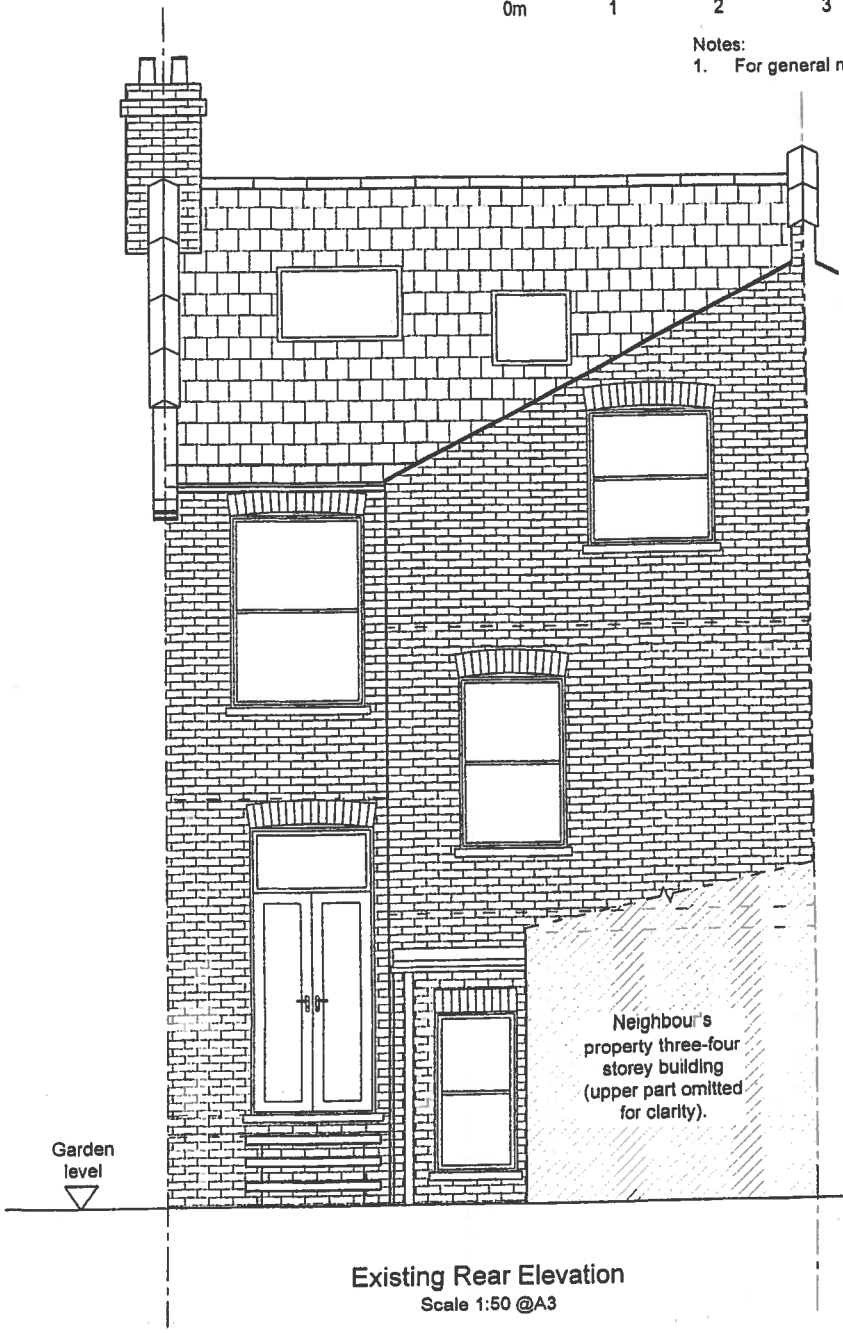
Job title: Redevelopment at 207 Sumatra Road West Hampstead London NW6 1PF	
Drawing title: Existing Roof Plan	
Client: Professor Kerry Hamilton	
Drawn by: P. Obrzut	Date: August 2017
Chk'd: W.K.J. Zablocki	Date: August 2017
Job number: 1381	Scale @ A3: 1 : 50
Drawing number: 1381 – 06	

Scale 1: 50 @A3

0m 0.5 1 2 3 4 5m

Notes:
1. For general notes see drawing 1381 - 01.

Existing Front Elevation
Scale 1:50 @A3



Existing Rear Elevation
Scale 1:50 @A3

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Job title
Redevelopment at
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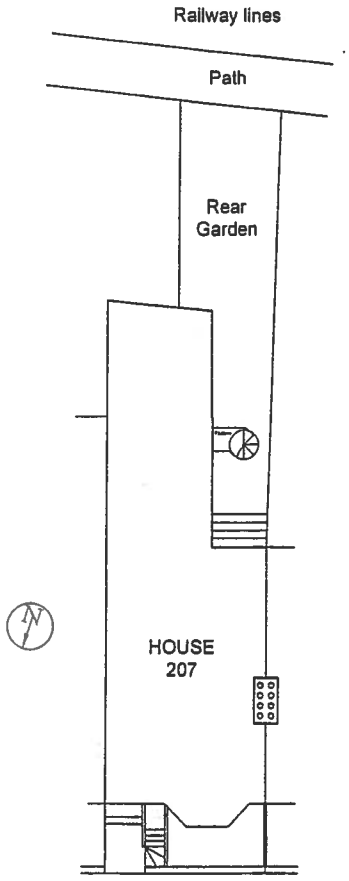
London NW6 1PF

Drawing title
Existing Front Elevation &
Existing Rear Elevation

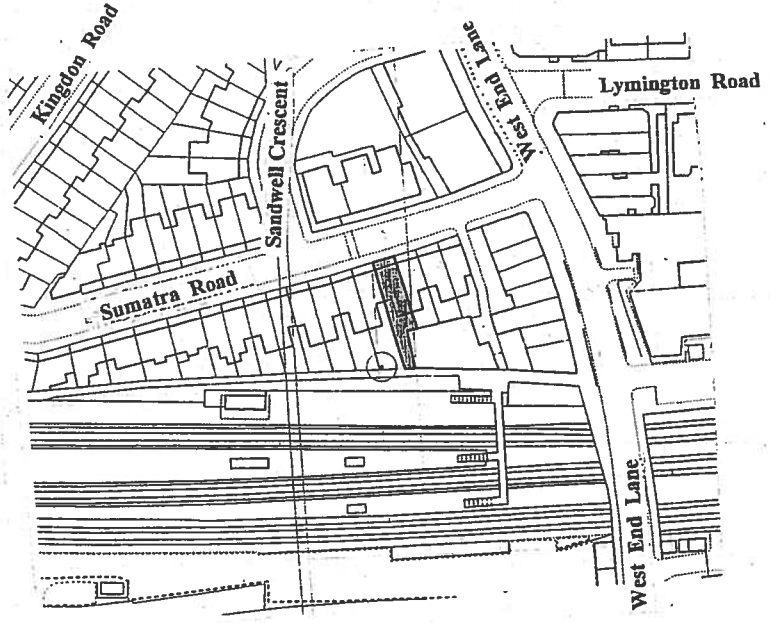
Client
Professor Kerry Hamilton

Drawn by	Date
P. Obrzut	August 2017
Chk'd	Date
W.K.J. Zablocki	August 2017
Job number	Scale @ A3
1381	1 : 50

Drawing number
1381 - 07

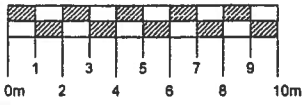


Site Plan
Scale 1:200 @A3

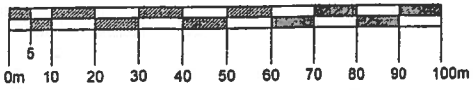


Location Plan
Scale 1:1250 @A3

Scale 1 : 200 @A3



Scale 1 : 1250 @A3



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Job title
Redevelopment at
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West Hampstead
London NW6 1PF

Drawing title
Existing Site Plan And
Location Plan

Client
Professor Kerry Hamilton

Drawn by: P. Obrzut	Date: August 2017
Chk'd: W.K.J. Zablocki	Date: August 2017
Job number: 1381	Scale @ A3: 1:200,1250

Drawing number
1381 – 08

DETAILED SPECIFICATIONS FOR A BASEMENT EXTENSION AT 207 SUMATRA ROAD, WEST HAMPSTEAD, LONDON NW6 1PF. JOB NUMBER 1381.

General Notes - (as and if required).

1. This drawing is to be read in conjunction with the specification, Architect's drawings and all other relevant drawings and details.

2. The Contractor is to be responsible for all correct setting out of the works and where the dimensions are not clear, incorrect or misleading, then he should ask as part of the Request For Information (RFI) system for clarification from the project supervisor - contracts administrator.

3. The Contractor is to be responsible for all Temporary Works and where there are General Safety requirements to ensure conformity with the Construction, Design and Managment (CDM) amendment regulation (2015) and subsequent amendments.

4. Concrete works to be to the following schedule:-

   A. All reinforced concrete below ground, where required, to be Calitte Waterproof Concrete using C35 / 20 mm aggregate at 28 days, supervised batching and concrete site placement by Cementaid - Everdure, 2 Rutherford Way, Crawley, West Sussex RH 10 LN tel: 0845 658 2000.

   B. Otherwise, below ground concrete to be C 25 / 20 mm aggregate with nominal reinforcement as shown on drawings.

   C. All reinforced concrete above ground to be C 35 / 20 mm aggregate.

   D. Cover to all earth faces to be 50 mm minimum and 25 mm elsewhere as a minimum.

5. All workmanship and materials to be in accordance with BS 8000 and relevant Codes of Practice.

6. New brickwork and block work to be in accordance CP121 - external walls to be as per planning permission requirements. Samples to be prepared and submitted to local authority for their approval. Walling to be as shown on the drawings.
   Minimum strength of brickwork and blockwork to be as follows:-
   Brickwork - 20 N / mm2.
   Blockwork - 7 N / mm2.
   Mortar to be category (III) to BS 5628 but below ground to category (II).
   Render to cover block or brick work to be 1 : 1 : 3 to match existing.

7. All new timber to be treated against rot, infestation and damp to BS 5707. Grade of timber to be minimum of C16 whilst C24 is, generally, the structural timber requirement that shall be employed on site. C24 is the structural basis for the calculations prepared for this project and has been confirmed in the calculations. Bolt timbers where doubled or trebled with M12 grade 8.8 coach bolts at 600 centres. All timber steel fixings i.e. hangers, straps, brackets, nails and screw etc. are to be galvanised. Provide noggins at third points on all spans.

8. All new windows to be double glazed 4 - 16 - 4 mm sealed units within uPVC frames in surrounds. The frames shall be suitably prepared and erected to prevent moisture collection and shall form a rain shield. Where glazing to be provided for bottom 1 metre of doors, this is to be doubled glazed, toughened, glass to Building Regulations Approved Document N1.

9. All new lead flashing required to prevent water penetration at butt joints, discontinuities and change of material. Use code 4 lead in these locations in accordance with the Lead Association requirements. Use code 3 and code 5 sheeting where needed as soakers, sarking and the like.

10. Form the central staircase as a fire escape route with all doors, glazed partitions leading onto it and M & E penetrations suitably protected against smoke spread and fire penetration into it. Provide at top of stairs case a fire alarm operated by mains and stand by battery, electrically powered exhaust fan to remove smoke build up in case of fire. Provide 0.5 hour fire check doors (FD 30) in sealed surround to frames; self closing by Perko door closers or similar approved.

11. Use double studs and double rafters around any chimney voids roof lights or vertical penetrations in floors.

12. All doors internally, whether fire doors or plain doors between rooms off fire escape, to be 1981 mm x 762 mm x 44 mm overall size.

FLOOR CONSTRUCTION.

13. Basement slab to be a 200 mm, reinforced concrete ground bearing slab, laid to level with an insulation layer and an overscreed to form a suitable finish. The ground floor slab will be, generally, a 150 mm deep, laid level, reinforced concrete, insitu solid or beam and block floor spanning between beams. The upper floors and roof will be C 24 timber joists spanning between steel beams supported on load bearing block walls.

14. All concrete, timber and steelwork to the National Building Specification, or, as varied in this document.

15. All trims and double joists to be bolted together using M 12 bolts and gang nails at 600 mm centres minimum.

16. Floor finish to be tongue and groove 150 mm wide x 12 mm timber flooring or 12 mm t and g chipboard to client's requirements.

17. Use one bend L straps from30 x 5 mm x 600 mm or 700 mm long and 150 mm return to fix joists to steels or concrete lintels, beams, padstones or internal block walls.

18. Use suitable timber packers / noggins from off cuts nailed through sides only to hold into position. Use a minimum of two rows betweeen beams spaced at no less than 5 metres apart.

19. Use timber cut to suit to fix to steels to pack up or lower levels. use Hilti driven nails to fix to flanges and webs of steels.

20. Provide Rockwool, Kingspan or Celotex in 100 mm segments to insulate between floors and provide noise reduction as per Building Regulation Requirements, introduced in July 2003, as approved document E.

BRICK AND BLOCK WALLS.

21. External skin of external walling to be of red, wire cut, rustic standard bricks at 27.5 N / mm2 in 1 : 1 : 6 cement: lime: soft red sand mortar mix with plasticiser and retarder etc. to suit. Interspersed in bands two layers of soft London Stocks to provide contrast and balance and to suit existing, or as indicated on the Architects drawings. External wall block work to be 100 mm wide x 7 N / mm2, thermolite / celcon blocks in similar mortar mix throughout.

22. Insulation in external walling to be full width (i.e. 100 mm) Rockwool, Kingspan or Celotex; fixed using proprietary fixing as per Manufacturer's requirements.

23. Internal block walls to be to thickness as shown on the plans using solid thermal blocks 440 mm x X mm x 215 mm high etc in 1 : 1 : 6 mortar mix.

SEPARATION WALLS

24. Forms such walls in 140 mm thick / 200 mm thick load bearing blockwork or 100 x 50 mm timber studwork with sole and header plates, verticals at 600 mm centres and rows of noggins, to suit, at 1.2 m rises. Infill with 100 mm Rockwool, Kingspan or Celotex to suit.

25. Line with 12.5 mm foil backed plasterboard and skim finish both sides. Where studwork encloses bathrooms and wet rooms, use 12.5 mm moisture resistant plasterboard on inside and, externally to this area, use normal 12.5 mm plasterboard. Where walling is required to be a fire stop such as cheeks to mansard, underside of existing or new stairs to house etc., provide one layer firecheck plasterboard and one layer standard plasterboard.

DRAINAGE

26. New drains to be 100 mm underground PVC flexibly jointed and falling a minimum 1 in 40, generally, and surrounded in 150 mm pea shingle. Where the drain with rigid joints passes under the building, it is to be encased in 150 mm concrete. Where a flexible plastic drain passes under the building, it is to be encased in 150 mm pea shingle surround. New manholes to be constructed in 215 class B engineering brick, un-rendered on 150 mm concrete base using. 1 : 3 sand : cement mortar. Any internal manholes to be fitted with double seal recessed / screw down covers. Drains, penetrating walls, are to be bridged with a concrete lintel. All drainage to be in accordance with BS 5572.

27. Surface Water Drainage : 100 mm half round gutter to 63 mm downpipe to 100 mm flexibility jointed drain, falling at 1 in 60 and surrounded in 150 mm pea shingle to existing surface water drainage if available and practicable to connect to. If this is not possible, then pass water to hollow soakaway constructed in honeycomb brickwork. Soakaway to be a minimum of 5.0 metres away from any edge of building and to have a volume capacity of 1.0 m3. Soakaway to be BRE Digest 151.

28. Plumbing to Sinks and Baths to have wastes 40 mm dia. whilst Bidet and Wash Hand Basins to be 32 mm dia. All fittings to have 75 mm deep sealed traps and discharge either to a back inlet gulley or 100 mm dia. SVP. WC's to have a 100 mm dia. waste and either discharge to a SVP or via an easy bend direct to the manhole. Where new SVP are required, they are to be 100 mm uPVC constructed to BRE Digest 80 - second series. Top of SVP to terminate 900 mm above any window and to be capped with a plastic cage. The base of the SVP to connect via an easy bend to the manhole. Rodding Eyes to be provided at changes of direction. All plumbing to be in accordance with BS 5572.

ADDITIONAL ARCHITECTURAL REQUIREMENTS

29. Proprietary dpc. to F30 / 330 - NBS, on brickwork on each course at least 150mm above proposed finished ground / soil level to outside.

30. Notwithstanding item 10 requirements, fire & smoke detectors to be provided as one on each floor with a fire sounders alarm built in to detector. All such detector / sounder to be operated by mains electricity with standby battery back up.

31. Following discussion with Building Control, provide at top of walling "wall tie restraints" such as Bat straps 650 x 150 x 30 x 5 mm angle M305 steel and fixed using No 12 x 50 mm screws or 8 SWG x 75 mm long nails. Use noggins between joists at right angles etc. Bat or similar approved if item 17 does not satisfy local requirements.

32. Roof ventilation to be a minimum 35mm over the top of insulation but under breathing felt laid on top of roof / mansard joists. At ridge, provide proprietary ventilators at 2.0 m centres. At eaves, provide proprietary ventilators built into soffit fascia board to suit.

33. Dormer cheeks to be protected with 2 layers firecheck plasterboard to achieve 1 hour fire protection to cheeks within 1 metre of boundary.

34. Cavities to all extensions to be closed using "therma bate" or similar approved cavity closure to satisfy Building Regulations requirements - Regulation 4 - L1.

35. Materials for roof, cheeks guttering, down pipes, brickwork and windows / doors to match existing as close as possible.

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Drawing title
Specification

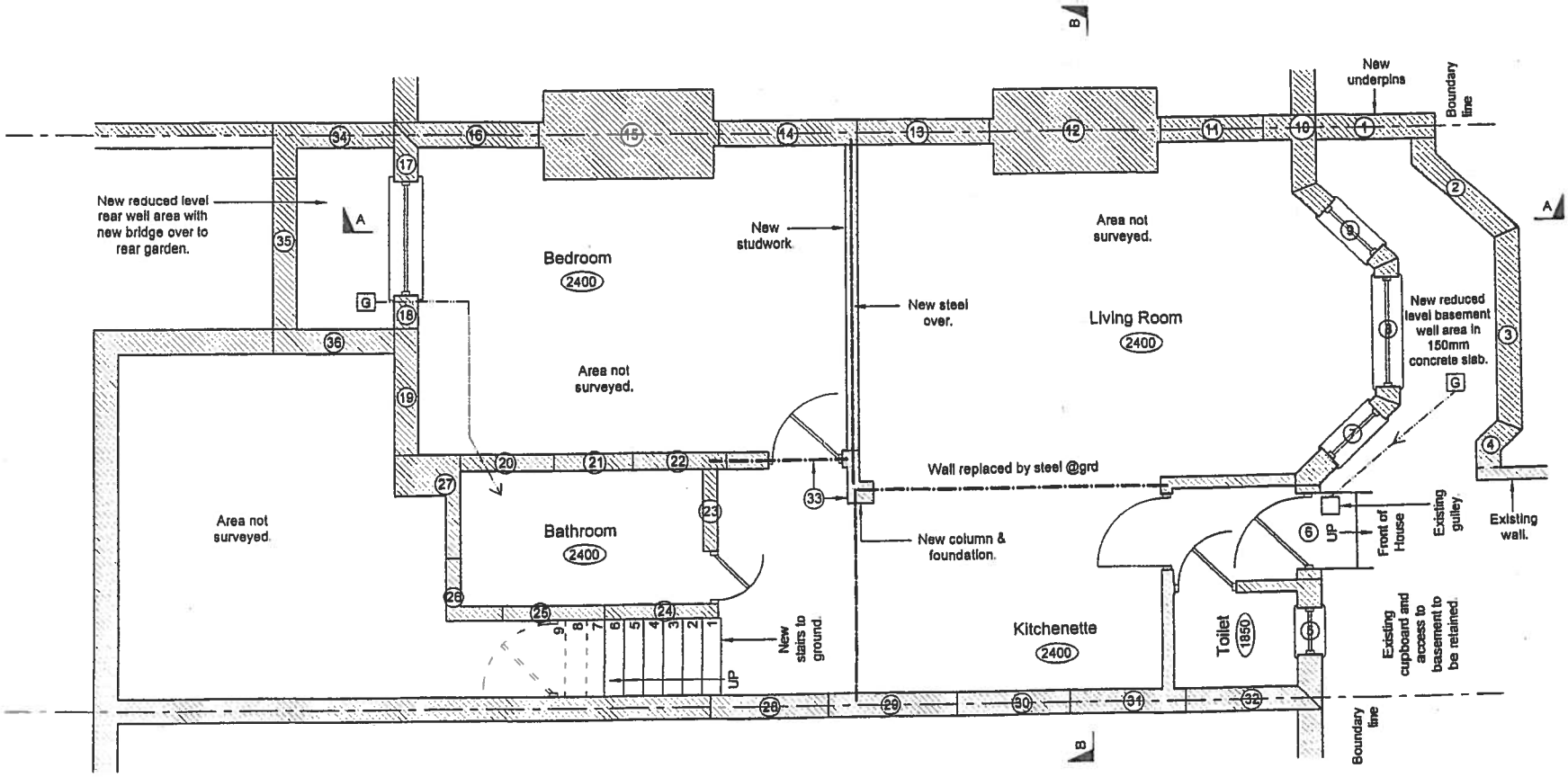
Client
Professor Kerry Hamilton

Drawn by	Date
P. Obrzut	August 2017
Chk'd	Date
W.K.J. Zabiocki	August 2017
Job number	Scale @ A3
1381	NTS
Drawing number	
1381 – 09	

Scale 1: 50 @A3

0m 0.5 1 2 3 4 5m

Notes:
1. This drawing to be read in conjunction with all other Architect's drawings, specification given on 09, and all other structural, electrical and mechanical drawings.
2. See elevations for details of windows and doors.
3. All new works to outside of existing house to match existing materials exactly.
4. Underpins shown thus (35)



Proposed New Basement Layout

Scale 1:50 @A3

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Drawing title
Proposed Basement Layout

Client
Professor Kerry Hamilton

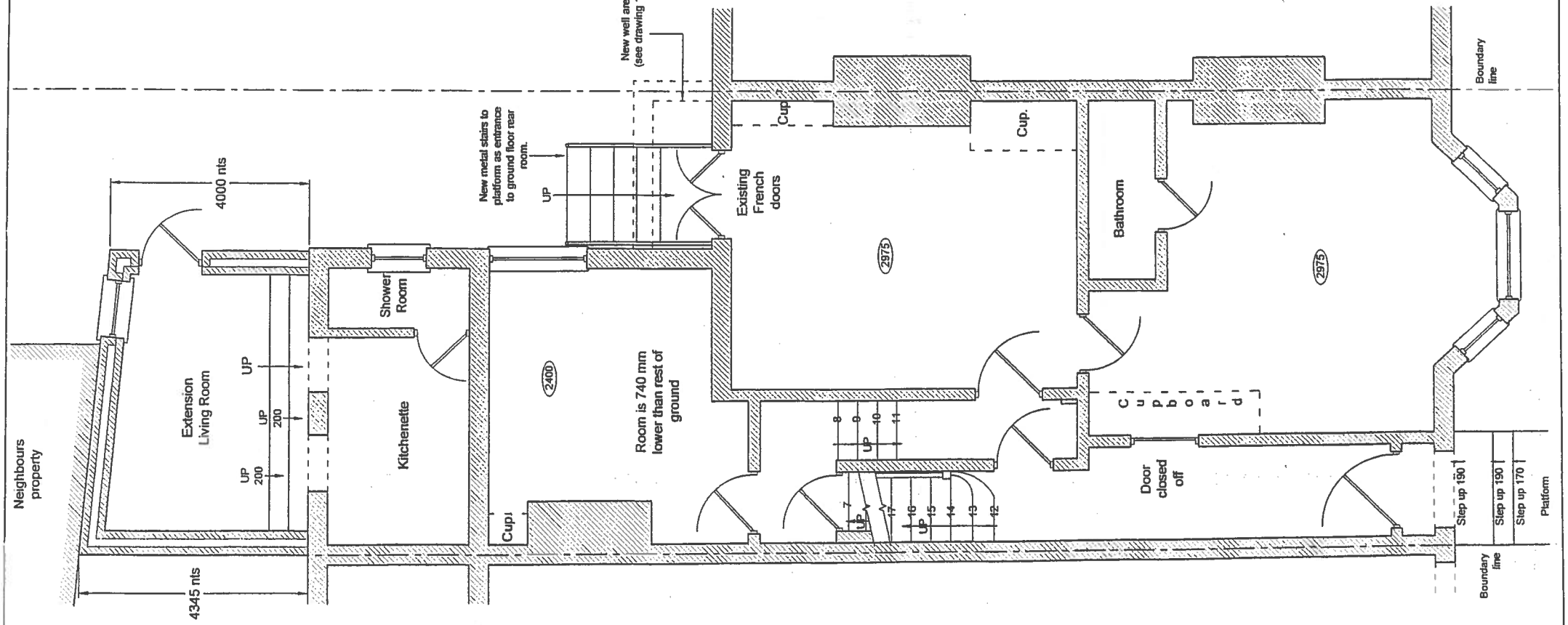
Drawn by	Date
P. Obrzut	August 2017
Chk'd	Date
W.K.J. Zablocki	August 2017
Job number	Scale @ A3
1381	1 : 50

Drawing number
1381 – 11

Scale 1: 50 @A3

0m 0.5 1 2 3 4 5m

Notes:
1. For general notes see drawing 1381 - 11.



Proposed Ground Floor Layout
Scale 1:50 @A3

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Job title
Redevelopment at
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London NW6 1PF

Drawing title
Proposed Ground Floor Layout

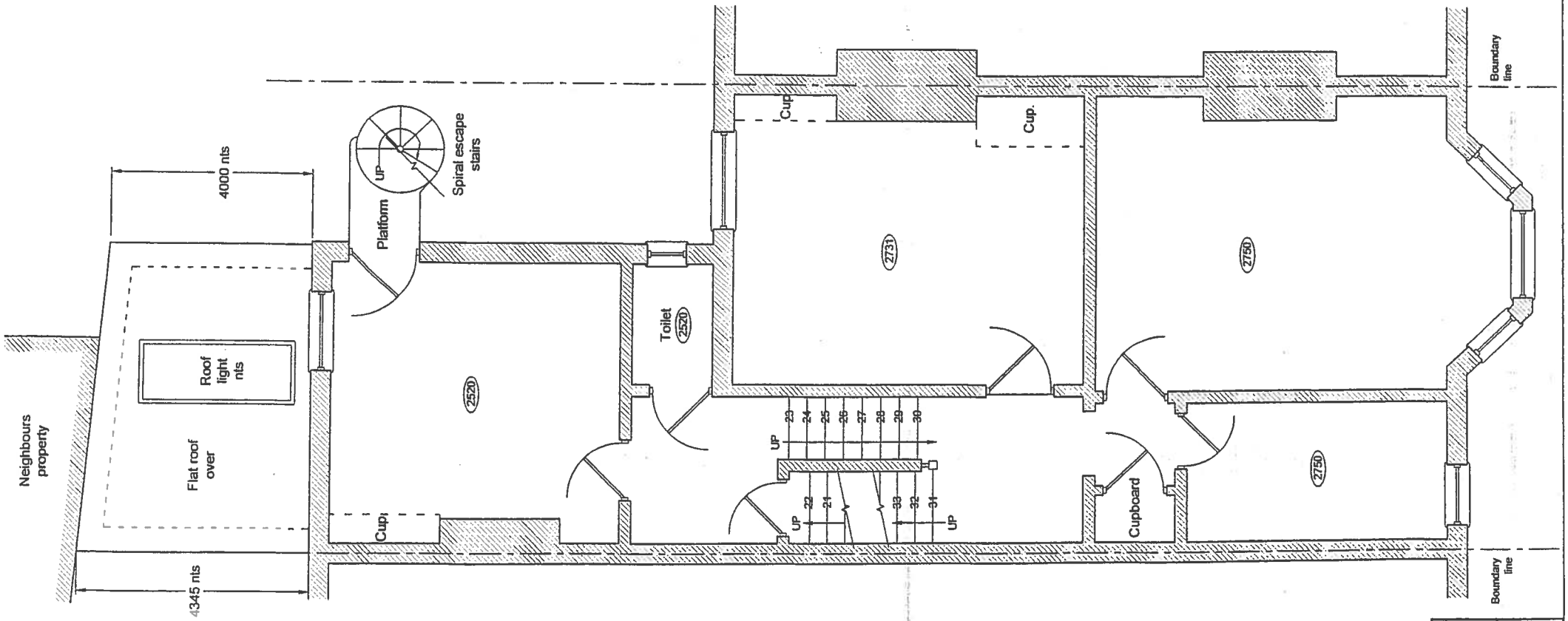
Client
Professor Kerry Hamilton

Drawn by: P. Obrzut	Date: August 2017
Chk'd: W.K.J. Zablocki	Date: August 2017
Job number: 1381	Scale @ A3: 1 : 50
Drawing number: 1381 – 12	

Scale 1: 50 @A3

0m 0.5 1 2 3 4 5m

Notes:
1. For general notes see drawing 1381 - 11.



Proposed First Floor Layout
Scale 1:50 @A3

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Job title
Redevelopment at
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Drawing title
Proposed First Floor Layout

Client
Professor Kerry Hamilton

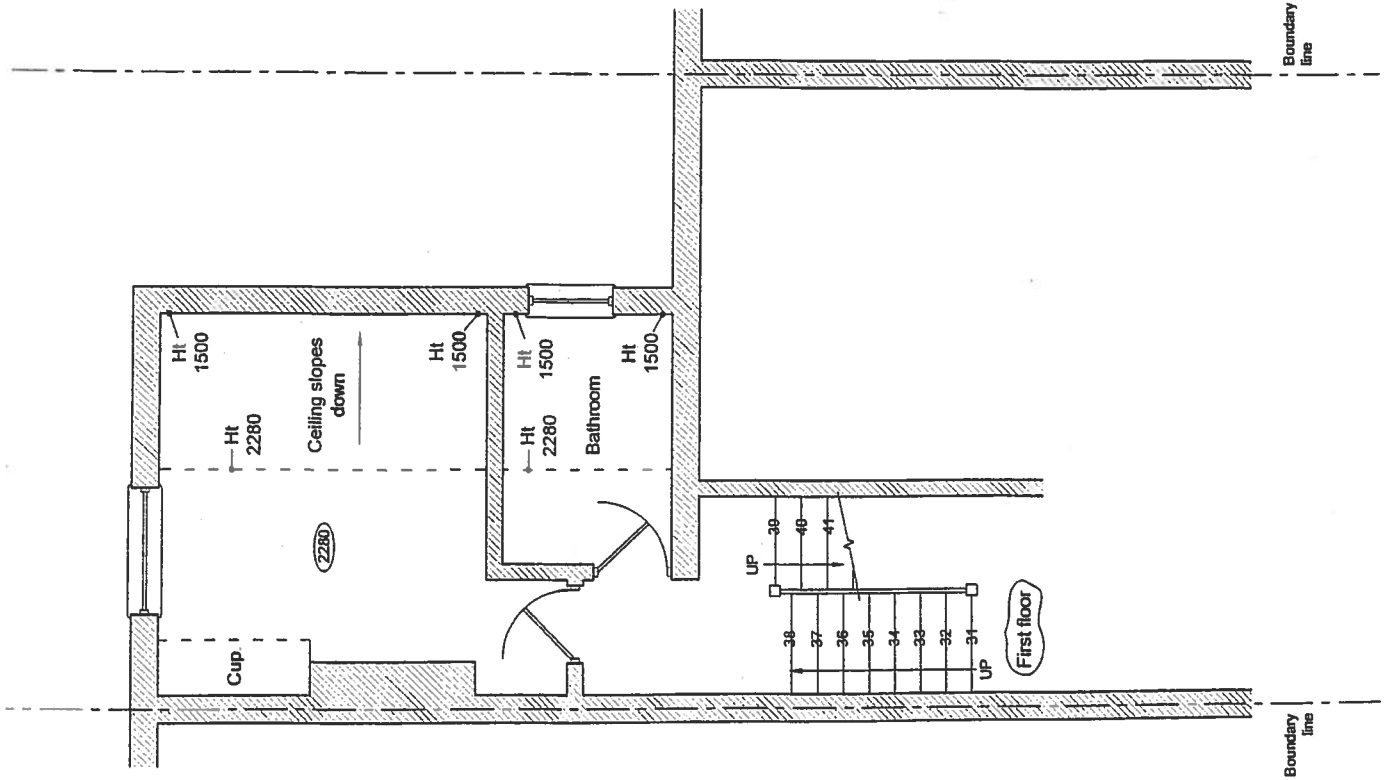
Drawn by	Date
P. Obrzut	August 2017
Chk'd	Date
W.K.J. Zablocki	August 2017
Job number	Scale @ A3
1381	1 : 50

Drawing number
1381 – 13

Scale 1: 50 @A3

0m 0.5 1 2 3 4 5m

Notes:
1. For general notes see drawing 1381 - 11.



Proposed First To Second Floor
Half Landing In Outrigger
Scale 1:50 @A3

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Job title
Redevelopment at
207 Sumatra Road
West Hampstead
London NW6 1PF

Drawing title
Proposed First to Second Floor
Half Landing In Outrigger

Client
Professor Kerry Hamilton

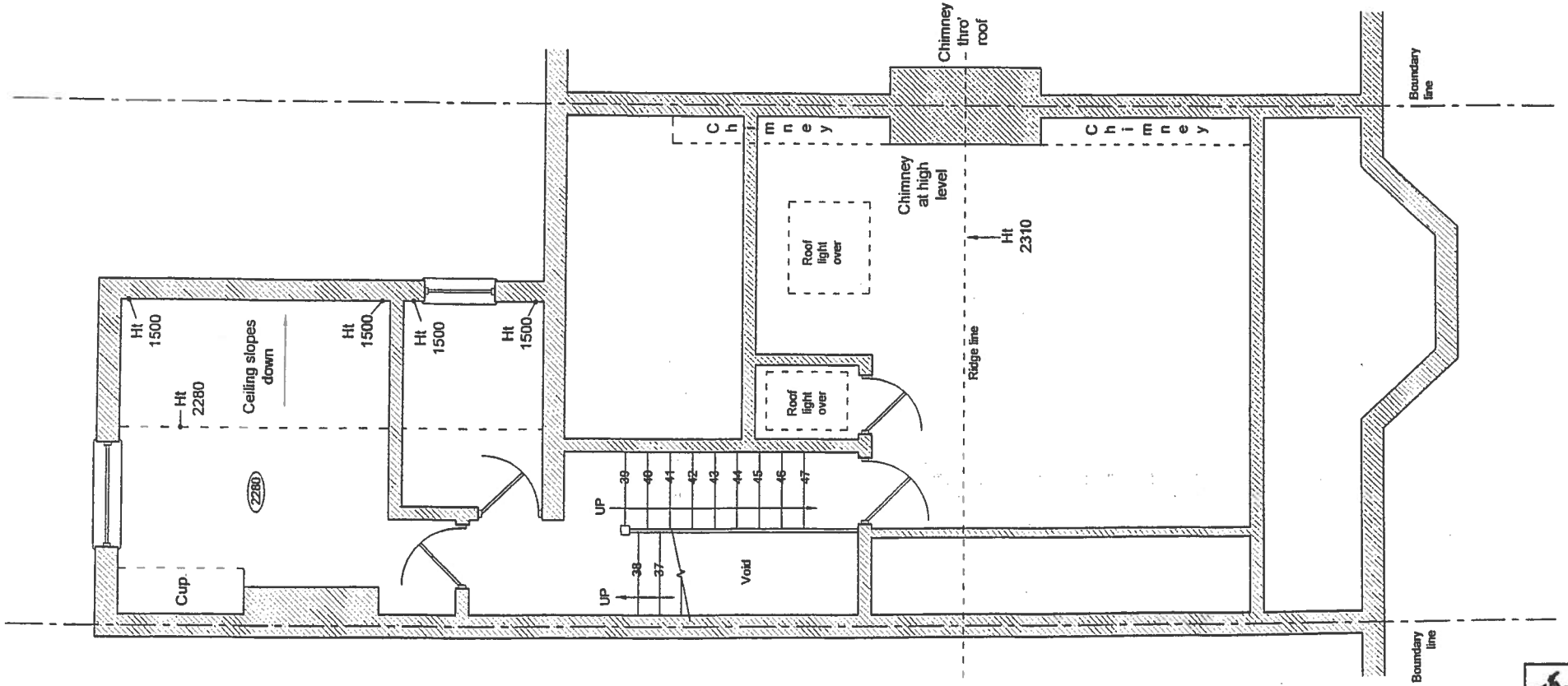
Drawn by	Date
P. Obrzut	August 2017
Chk'd	Date
W.K.J. Zablocki	August 2017
Job number	Scale @ A3
1381	1 : 50

Drawing number
1381 – 14

Scale 1: 50 @A3

0m 0.5 1 2 3 4 5m

Notes:
1. For general notes see drawing 1381 - 11.



Proposed Second Floor Layout

Scale 1:50 @A3

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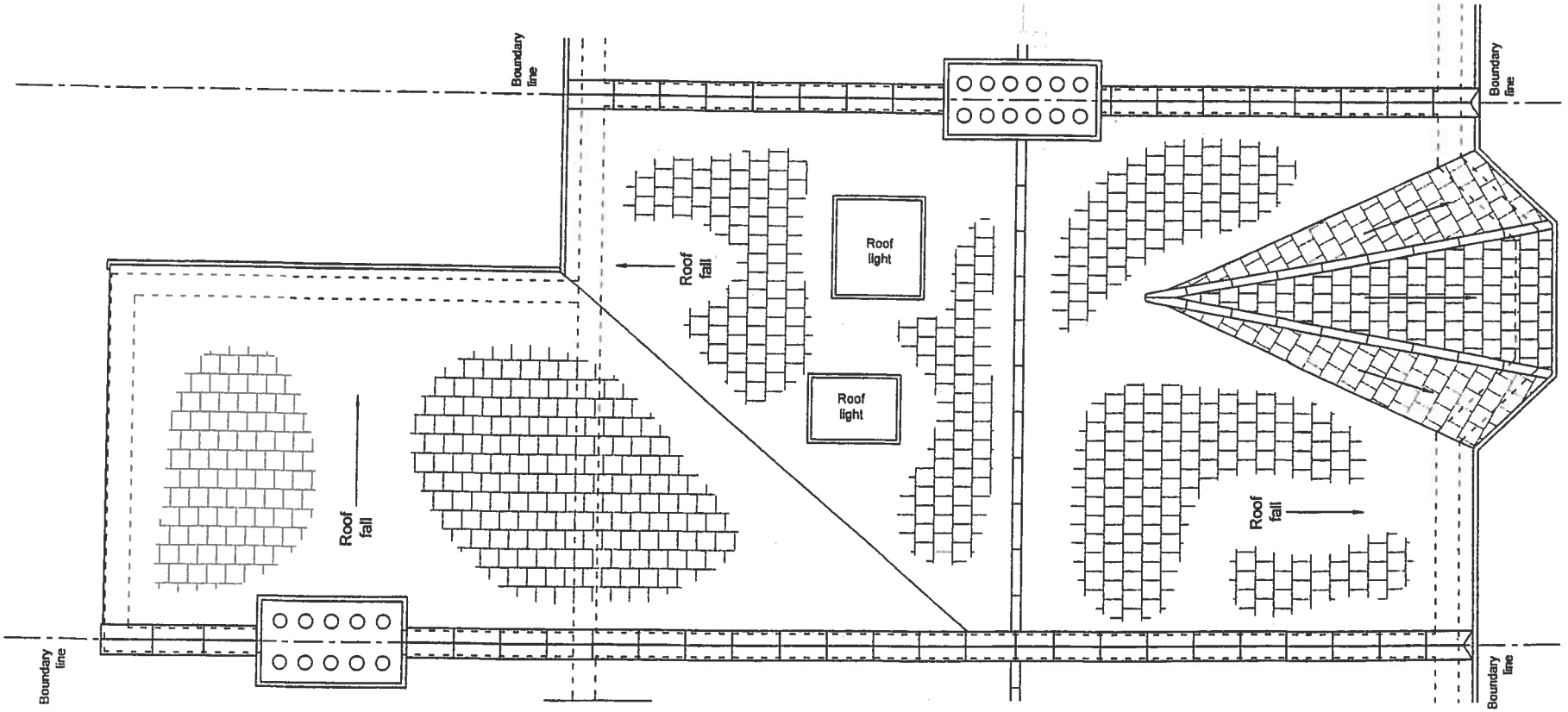
Job Title	Redevelopment at 207 Sumatra Road West Hampstead London NW6 1PF
Drawing title	Proposed Second Floor Layout
Client	Professor Kerry Hamilton
Drawn by	P. Obrzut
Date	August 2017
Chk'd	W.K.J. Zablocki
Date	August 2017
Job number	1381
Scale @ A3	1 : 50
Drawing number	1381 – 15

Scale 1: 50 @A3

0m 0.5 1 2 3 4 5m

Notes:
1. For general notes see drawing 1381 - 11.



Proposed Roof Plan
Scale 1:50 @A3

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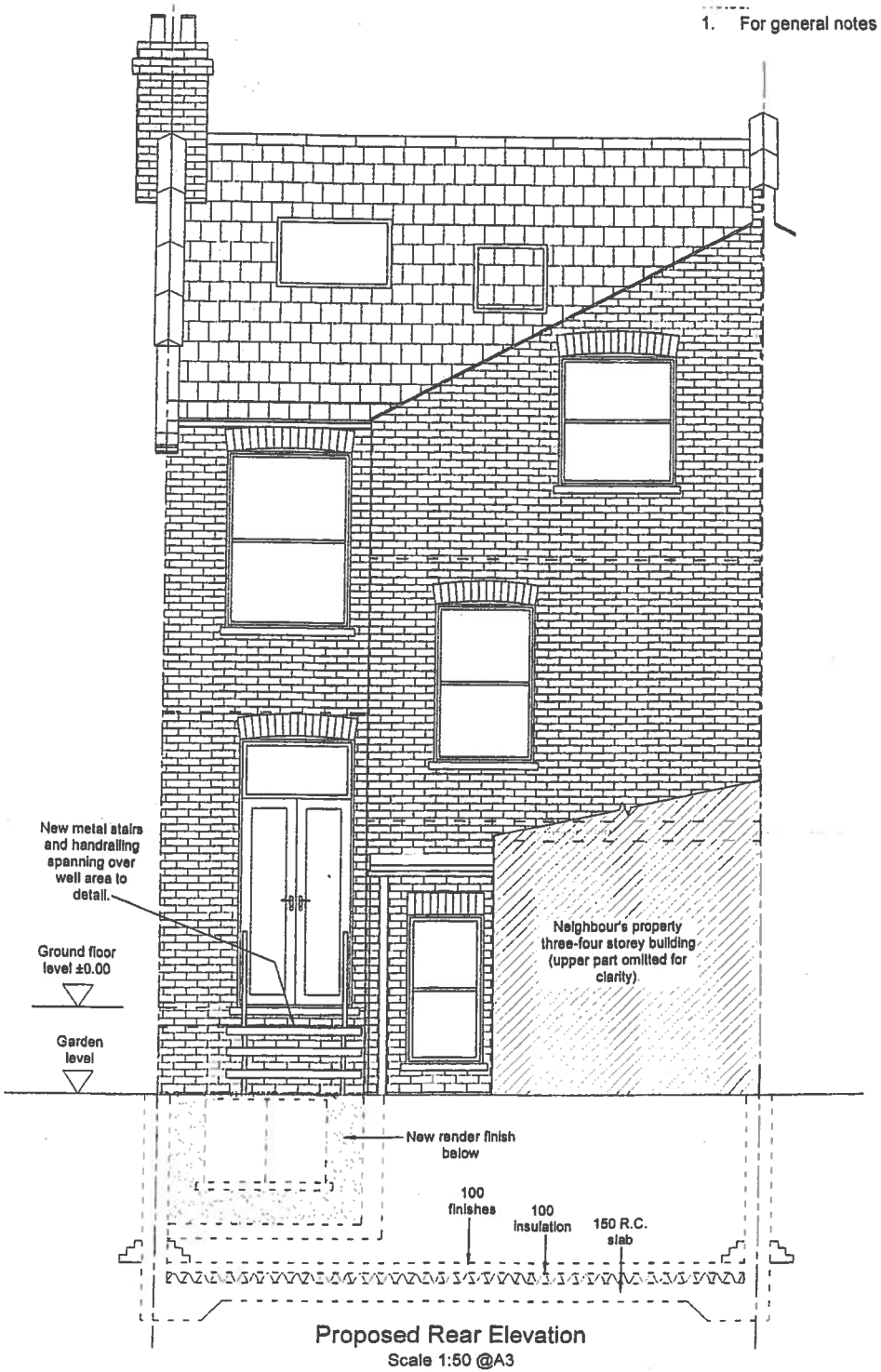
Drawing title
Proposed Roof Plan

Client
Professor Kerry Hamilton

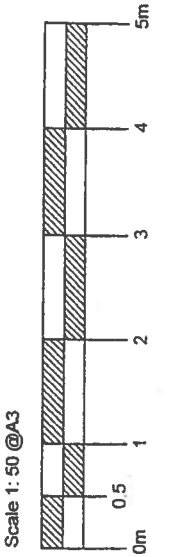
Drawn by: P. Obrzut	Date: August 2017
Chk'd: W.K.J. Zablocki	Date: August 2017
Job number: 1381	Scale @ A3: 1 : 50
Drawing number: 1381 – 16	

1. For general notes see drawing 1381 - 11.

Proposed Front Elevation
Scale 1:50 @A3



Proposed Rear Elevation
Scale 1:50 @A3



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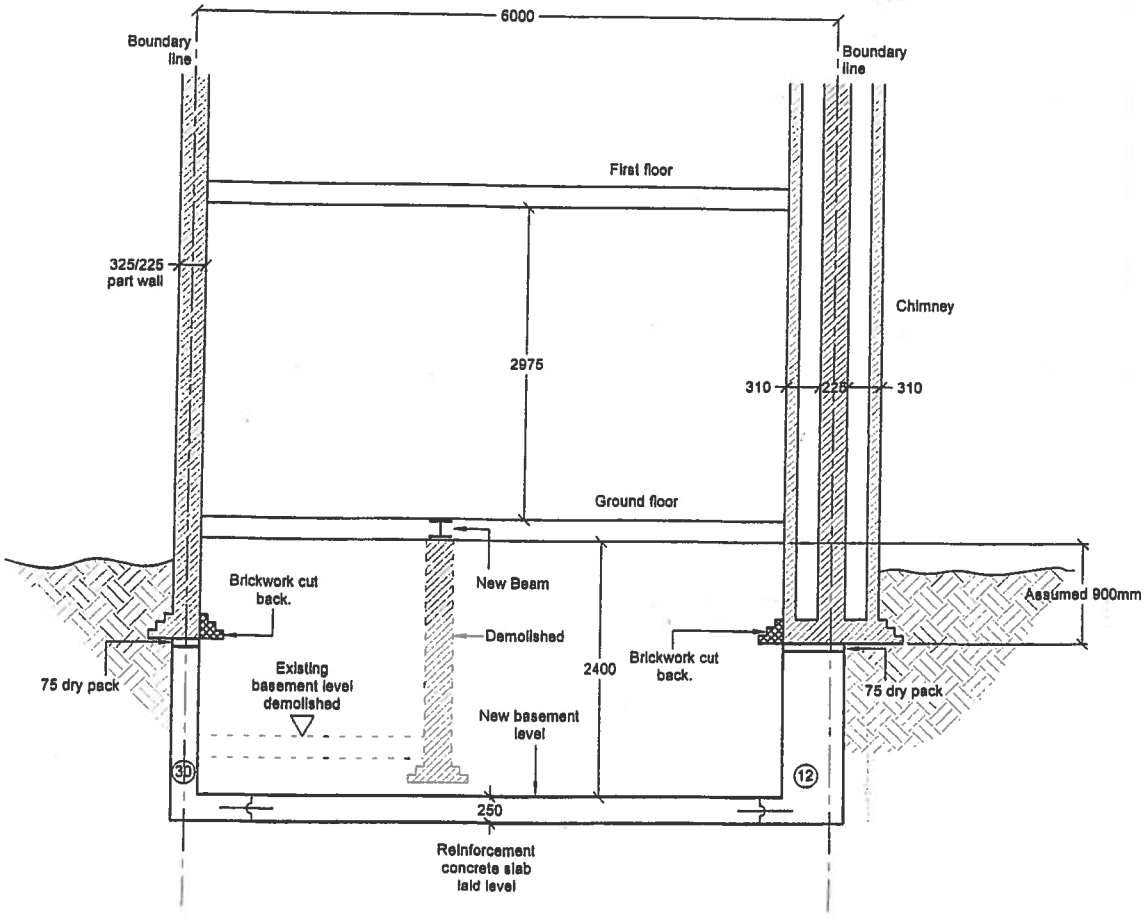
Drawing title
Proposed Front Elevation &
Proposed Rear Elevation

Client
Professor Kerry Hamilton

Drawn by	Date
P. Obrzut	August 2017
Chk'd	Date
W.K.J. Zablocki	August 2017
Job number	Scale @ A3
1381	1 : 50

Drawing number
1381 – 17



Section B-B

Scale 1:50 @A3

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Drawing title
Proposed Basement
Section B-B

Client
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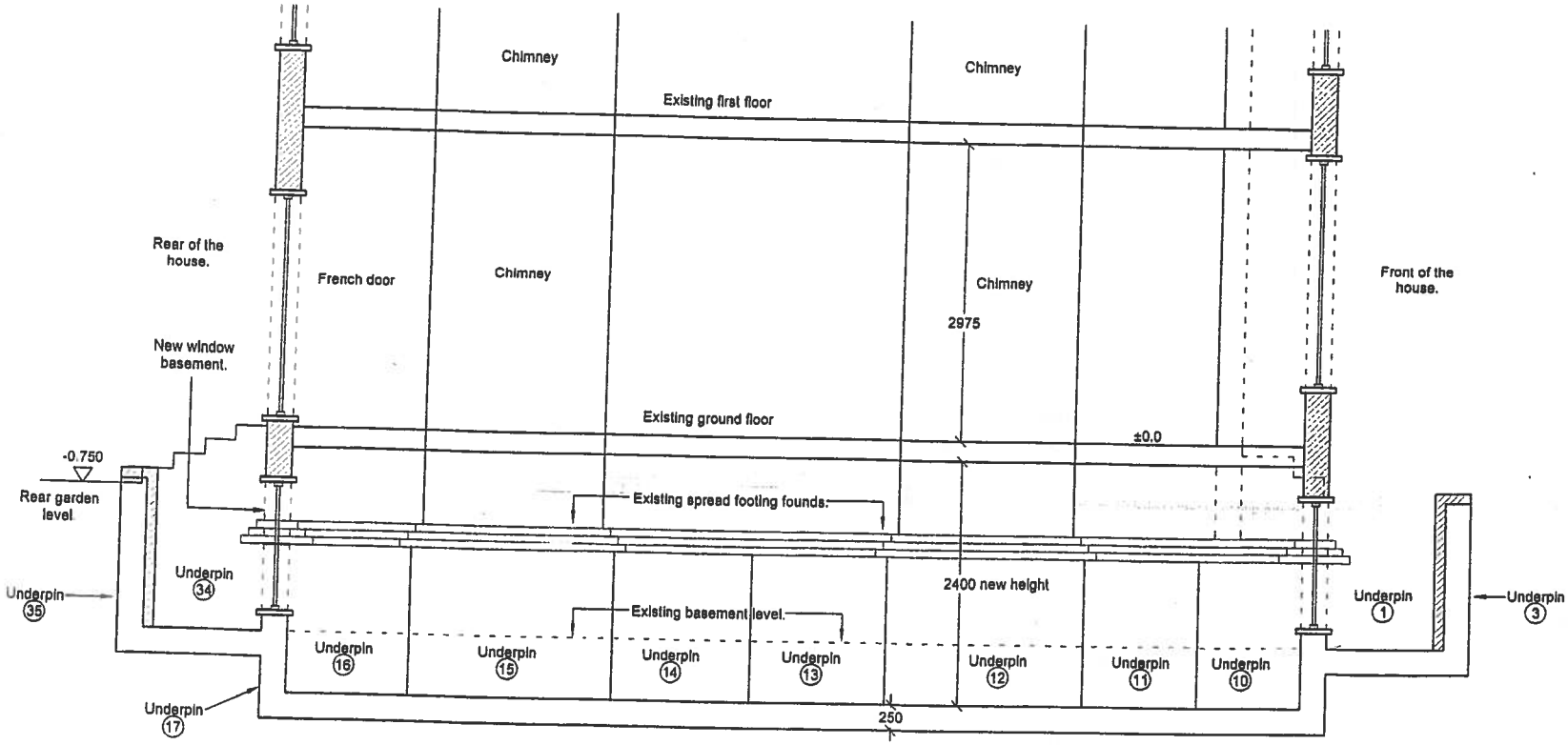
Drawn by	Date
P. Obrzut	August 2017
Chk'd	Date
W.K.J. Zablocki	August 2017
Job number	Scale @ A3
1381	1 : 50

Drawing number
1381 - 31



Proposed Section A-A

Scale 1:50 @A3

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Proposed Section A-A

Client
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Drawn by:	Date
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Chk'd	Date
W.K.J. Zabiocki	August 2017
Job number	Scale @ A3
1381	1 : 50

Drawing number
1381 – 32

APPENDIX E


HUNTERS
LT58 NZZ