
South Lodge, Heathside,
Hampstead, London NW3 1BL

**Drainage Strategy and SuDS
Statement**

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Document Control

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		remarks:	Preliminary Issue				
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1.0 Introduction

- 1.1 Elliott Wood Partnership Ltd have been appointed to provide a drainage strategy report to support a detailed planning application for the South Lodge development.
- 1.2 The purpose of this report is to explain the approach taken with regards to the below ground drainage strategy, it evaluates the selection of SuDS and highlights how the drainage disposal hierarchy has been followed.

2.0 Existing Site

- 2.1 The development site is located within the London Borough of Camden (LBC), approximately 0.5km north east of Hampstead Station. The site is located south west of Hampstead Heath and is bounded by Heath Side to the south east and existing residential properties on all other boundaries. Refer to Figure 1 for the site location plan.



Figure 1 - Development Site Location (© Bing Maps. Microsoft product screen shot reprinted with permission from Microsoft Corporation)

- 2.2 The existing site comprises of an existing 5 storey residential building (including basement level), with a surrounding garden area which largely consist of soft-scaping. Access to the site is gained via Heath Side. The total size of the existing site is approximately 1,900m².
- 2.3 The Lead Local Flood Authority (LLFA), responsible for all flood risk matters that do not relate directly to designated Main Rivers, are LBC. The Statutory Sewerage Undertaker for this area is Thames Water.
- 2.4 A site wide topographic survey has been undertaken which shows that the levels across the site generally fall from the northern and western boundary towards the southern and eastern boundary. Levels range from approx. 96.80m AOD in the north west corner of the site, to approx. 94.00m AOD in the south east corner. Refer to Appendix A for the topographic survey.
- 2.5 Site investigation works were undertaken by SAS (Site Analytical Services) in October 2017. Borehole and trial pit logs from the investigations have been included within Appendix B. The report confirms underlying ground conditions to be made ground (up to 1.0m bgl), underlain by silt sandy Clay, which was recorded to the base of the borehole.
- 2.6 Groundwater onsite was found to be around 3.8m below ground level (bgl).

3.0 Existing Drainage

- 3.1 Public sewer records have been obtained from Thames Water. An extract of the asset plan is shown in Figure 2 below. Refer to Appendix C for the full records.

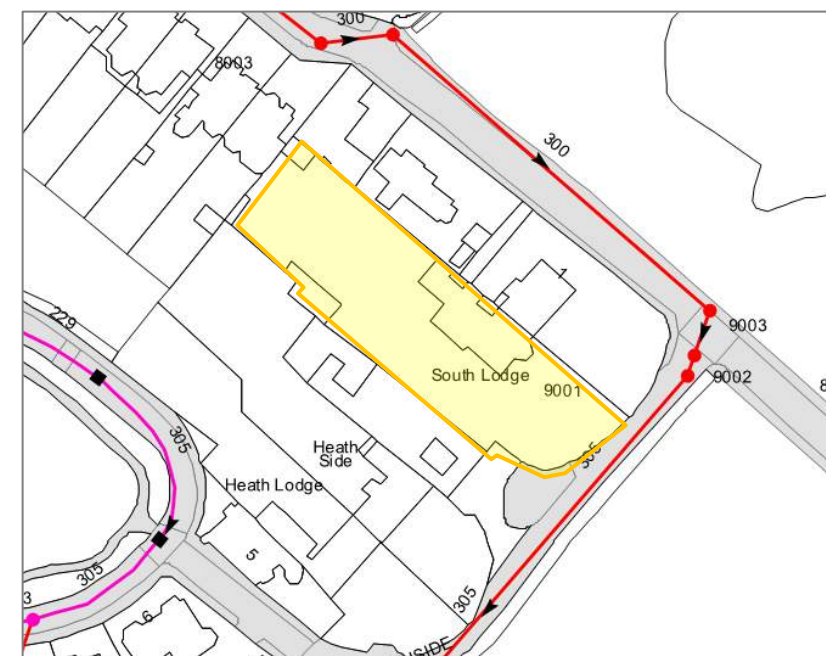


Figure 2 – Extract from Thames Water sewer records

Thames Water Disclaimer: The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken

- 3.2 Records show that the offsite sewer network is combined i.e. sewers carry both surface water and foul water flows. Records show a 300mm diameter combined water sewer in East Heath Road which continues along Heath Side and across Hampstead Heath (East Heath) further downstream. No public sewers are shown to pass beneath the development site.
- 3.3 A CCTV drainage survey has been undertaken on site which confirmed that the onsite private drainage network is combined. Refer to Appendix D for a copy of the CCTV plan.
- 3.4 The existing site has 2 outfalls to the public sewer. The first of the outfall pipes is located adjacent to the south west boundary at ground flood level. This pipe is 200mm diameter, of brick construction and drains beneath the adjacent property (1 Heath Side).
- 3.5 The second outfall pipe from the site is located adjacent to the north east boundary at basement level (outfall manhole located within the existing lightwell). The existing outfall pipe is cast iron and is 150mm diameter, this drains beneath the property on the opposite side of the development site to the first outfall.
- 3.6 The CCTV survey proves that the existing building (212m²) is positively drained to the offsite sewer network. Refer to Appendix E for the existing area take-off drawing.
- 3.7 Surface water run-off from the private demise has therefore been calculated as follows (based on a 50mm/hour rainfall intensity):

$$Q_{\text{EXISTING}} = 2.78 \cdot C \cdot i \cdot A \text{ (Equation 24.5 CIRIA C753)}$$

Where:

$$C = C_V \cdot C_R$$

$$C_V = 1$$

$$C_R = 1$$

$$\therefore C = 1$$

$$i = 50\text{mm/hr}$$

$$A = 0.00212\text{Ha}$$

$$\therefore Q_{\text{EXISTING}} = 2.78 \cdot 1 \cdot 50 \cdot 0.0212 = 2.9 \text{ l/s}$$

4.0 Proposed Development

- 4.1 The latest architectural proposals for the site are included within Appendix F.
- 4.2 The proposals involve the remodelling of the existing 5 storey house, which includes the partial demolition of the northern section of the building at ground flood level (which is to be rebuilt) and extension of the existing basement. There is a very minor increase in drained impermeable area post-development.

5.0 Proposed Surface Water Strategy

- 5.1 The surface water drainage system has been designed in accordance with the requirements of Planning Practice Guidance (PPG). The following drainage hierarchy has therefore been considered:
1. Drain surface water into the ground (infiltration)
 2. To a surface water body
 3. To a surface water sewer, highway drain, or another
 4. To a combined sewer
- 5.2 As the underlying ground consists of impermeable Clay, infiltration is not deemed feasible for the development site. Infiltration testing was undertaken as part of the site investigation works, which confirmed poor soakage results (3.23 x 10⁻⁷m/s).
- 5.3 There are no surface water bodies in the vicinity of the site. There are also no public surface water sewers in the vicinity (offsite sewers are combined). Therefore it is proposed to continue to drain both foul water and surface water from the development to the offsite combined water sewers.
- 5.4 The area associated with the new building will be similar to the existing, refer to Appendix G for the proposed area take-off plan. There will be a very minor increase to impermeable drained area post-development (resulting in approximately 0.1l/s additional run-off).
- 5.5 Drawings showing the proposed below ground drainage strategy have been included within Appendix H.
- 5.6 Surface water from the new extension will be routed to the existing outfall manhole adjacent to the north east boundary (within the existing lightwell). This will need to be via a suspended above ground drainage network, which is to be detailed by the Architect / M+E engineer. Hardstanding around the perimeter of the new ground floor extension will drain to the surrounding soft-scaping.
- 5.7 Foul water from the new extension will also be routed to the outfall manhole within the existing lightwell, via a suspended above ground drainage network.
- 5.8 Rainwater butts will be proposed where possible for irrigation purposes which will offset the minor increase in impermeable area post-development. Refer to the Architects plans for details.

6.0 Maintenance Requirements

- 6.1 All onsite drainage will be maintained by the property owner for the lifetime of the development, in accordance with recommendations below:

Gullies / Linear Channels:

Inspection and removal of debris from silt trap every 3 months; preferably after leaf fall in the autumn. (Timeframe can be adjusted to suit actual site conditions)

Drainage pipes, manholes & Silt traps:

Inspect manholes & silt traps for build-up of silt and general debris (minimum of 6 monthly or to suit site requirements). If silt/debris is building up then clean with jetting lorry / gully sucker and inspect pipe – repeat cleaning if required. NOTE: Manhole covers can be heavy and suitable lifting equipment / procedures should be used. Where possible, personnel should not enter manholes to carry out maintenance.

Pumping Stations:

Pumping stations should be inspected regularly and maintained in accordance with the pump manufacturer requirements.

Appendix A – Topographical Survey

Appendix B – Extracts from Site Investigation Report

Site Analytical Services Ltd.

Site SOUTH LODGE, HEATHSIDE, HAMPSTEAD, NW3 1BL	Borehole Number BH1
Client ELLIOTTWOOD PARTNERSHIP LTD	Job Number 1727399
Engineer	Sheet 1/2

Boring Method ROTARY PERCUSSIVE	Casing Diameter 128mm cased to 0.00m	Ground Level (mOD)
	Location TQ268860	Dates 16/10/2017

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.25	D1					(0.30)	MADE GROUND: Pea shingle over dark brown silty clayey sand with fragments of brick and concrete rubble		
0.50	D2					0.30			
0.75	D3					(0.40)	MADE GROUND: Light brown silty sandy clay with fragments of brick and concrete rubble		
1.00-1.45	SPT(C) N=5					0.70			
1.00	D4		DRY	1,0/1,1,2,1			Soft becoming firm, mottled light brown orange grey silty sandy CLAY		
1.75	D5								
2.00-2.45	U1			45 blows		(2.80)			
2.75	D6								
3.00-3.45	SPT N=8								
3.00	D7		DRY	1,2/2,2,2,2					
3.75	D8					3.50	Firm, blue grey silty sandy CLAY with lenses of silty fine sand		▼1
4.00-4.45	U2			Slight Seepage(1) at 4.00m, rose to 3.80m in 20 mins. 30 blows					▽1
4.75	D9								
5.00-5.45	SPT N=10								
5.00	D10		3.80	2,2/3,2,2,3		(3.20)			
6.00	D11								
6.50-6.95	U3			55 blows		6.70	Stiff, brown orange very silty very sandy CLAY with partings of silty fine sand and occasional gypsum crystals		
7.50	D12								
8.00-8.45	SPT N=14								
8.00	D13		3.80	2,3/4,3,3,4		(3.30)			
9.00	D14								
9.50-9.95	SPT N=16								
9.50	D15		3.80	3,3/4,3,4,5					

Remarks

D= Disturbed Sample
 U= Undisturbed 100mm Diameter Sample
 C= Dynamic Penetration Test - Cone
 S= Standard Penetration Test - Cone
 Excavating from 0.00m to 1.00m for 1 hour.

Scale (approx)	Logged By
1:50	EW

Figure No.
1727399.BH1

Site Analytical Services Ltd.

Site
SOUTH LODGE, HEATHSIDE, HAMPSTEAD, NW3 1BL

Borehole Number
BH1

Boring Method ROTARY PERCUSSIVE	Casing Diameter 128mm cased to 0.00m	Ground Level (mOD)	Client ELLIOTTWOOD PARTNERSHIP LTD	Job Number 1727399
	Location TQ268860	Dates 16/10/2017	Engineer	Sheet 2/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.50	D16					10.00	Stiff, brown orange very silty very sandy CLAY with partings of silty fine sand and occasional gypsum crystals		
11.00-11.45 11.00	SPT N=18 D17		3.80	3,4/4,4,5,5					
12.00	D18								
12.50-12.95 12.50	SPT N=19 D19		3.80	4,3/4,5,5,5		(5.00)			
13.75	D20								
14.55-15.00 14.55	SPT N=23 D21		3.80	4,5/5,6,6,6		15.00	Complete at 15.00m		

PRELIMINARY

PRELIMINARY

Remarks D= Disturbed Sample U= Undisturbed 100mm Diameter Sample C= Dynamic Penetration Test - Cone S= Standard Penetration Test - Cone	Scale (approx) 1:50	Logged By EW
	Figure No. 1727399.BH1	

Site Analytical Services Ltd.

Site
SOUTH LODGE, HEATHSIDE, HAMPSTEAD, NW3 1BL

Borehole Number
WS1

Boring Method CONTINUOUS FLIGHT AUGER	Casing Diameter 128mm cased to 0.00m	Ground Level (mOD)	Client ELLIOTTWOOD PARTNERSHIP LTD	Job Number 1727399
	Location TQ268860	Dates 16/10/2017	Engineer	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.25	D1					(0.30)	MADE GROUND: Grass over dark brown sandy clay with fragments of brick and concrete rubble and small roots		
0.50	D2					0.30 (0.40)	MADE GROUND: Dark brown slightly gravelly sandy clay		
0.75	D3					0.60 (0.30)	MADE GROUND: Dark brown slightly gravelly fine to coarse grained sand		
1.00	D4					0.90	MADE GROUND: Brown fine to coarse grained sand with fragments of brick and concrete rubble		
1.50	D5					(1.40)	Stiff, brown slightly gravelly slightly silty sandy CLAY with lenses of silty fine sand		
2.00	D6					2.30	Stiff, mottled brown grey orange silty sandy CLAY with lenses of silty fine sand		
2.50	D7					(2.10)			
3.00	D8					4.40	Stiff, dark grey blue silty sandy CLAY with lenses of silty fine sand		
3.50	D9					(1.60)			
4.00	D10					6.00	Complete at 6.00m		
4.50	D11								
5.00	D12								
6.00	D13			Slight Seepage(1) at 5.80m.					∇1
6.00	V10 130+								

PRELIMINARY

Remarks D= Disturbed Sample V= Vane Test - Results in kPa Excavating from 0.00m to 1.00m for 1 hour.	Scale (approx)	Logged By
	1:50	EW
	Figure No. 1727399.WS1	

Appendix C – Thames Water Sewer Records

Asset location search



Property Searches

Elliott Wood Partnership LLP
241The Broadway
LONDON
SW19 1SD

Search address supplied South Lodge
Heath Side
London
NW3 1BL

Your reference 2170605

Our reference ALS/ALS Standard/2017_3647754

Search date 11 September 2017

Keeping you up-to-date

Knowledge of features below the surface is essential in every development. The benefits of this not only include ensuring due diligence and avoiding risk, but also being able to ascertain the feasibility for any commercial or residential project.

An asset location search provides information on the location of known Thames Water clean and/or wastewater assets, including details of pipe sizes, direction of flow and depth. Please note that information on cover and invert levels will only be provided where the data is available.



Thames Water Utilities Ltd
Property Searches, PO Box 3189, Slough SL1 4WW
DX 151280 Slough 13



searches@thameswater.co.uk
www.thameswater-propertysearches.co.uk



0845 070 9148



Asset location search



Property Searches

Search address supplied: South Lodge, Heath Side, London, NW3 1BL

Dear Sir / Madam

An Asset Location Search is recommended when undertaking a site development. It is essential to obtain information on the size and location of clean water and sewerage assets to safeguard against expensive damage and allow cost-effective service design.

The following records were searched in compiling this report: - the map of public sewers & the map of waterworks. Thames Water Utilities Ltd (TWUL) holds all of these.

This search provides maps showing the position, size of Thames Water assets close to the proposed development and also manhole cover and invert levels, where available.

Please note that none of the charges made for this report relate to the provision of Ordnance Survey mapping information. The replies contained in this letter are given following inspection of the public service records available to this company. No responsibility can be accepted for any error or omission in the replies.

You should be aware that the information contained on these plans is current only on the day that the plans are issued. The plans should only be used for the duration of the work that is being carried out at the present time. Under no circumstances should this data be copied or transmitted to parties other than those for whom the current work is being carried out.

Thames Water do update these service plans on a regular basis and failure to observe the above conditions could lead to damage arising to new or diverted services at a later date.

Contact Us

If you have any further queries regarding this enquiry please feel free to contact a member of the team on 0845 070 9148, or use the address below:

Thames Water Utilities Ltd
Property Searches
PO Box 3189
Slough
SL1 4WW

Email: searches@thameswater.co.uk

Web: www.thameswater-propertysearches.co.uk

Waste Water Services

Asset location search



Property Searches

Please provide a copy extract from the public sewer map.

Enclosed is a map showing the approximate lines of our sewers. Our plans do not show sewer connections from individual properties or any sewers not owned by Thames Water unless specifically annotated otherwise. Records such as "private" pipework are in some cases available from the Building Control Department of the relevant Local Authority.

Where the Local Authority does not hold such plans it might be advisable to consult the property deeds for the site or contact neighbouring landowners.

This report relates only to sewerage apparatus of Thames Water Utilities Ltd, it does not disclose details of cables and or communications equipment that may be running through or around such apparatus.

The sewer level information contained in this response represents all of the level data available in our existing records. Should you require any further Information, please refer to the relevant section within the 'Further Contacts' page found later in this document.

For your guidance:

- The Company is not generally responsible for rivers, watercourses, ponds, culverts or highway drains. If any of these are shown on the copy extract they are shown for information only.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an 'as constructed' record. It is recommended these details be checked with the developer.

Clean Water Services

Please provide a copy extract from the public water main map.

Enclosed is a map showing the approximate positions of our water mains and associated apparatus. Please note that records are not kept of the positions of individual domestic supplies.

For your information, there will be a pressure of at least 10m head at the outside stop valve. If you would like to know the static pressure, please contact our Customer Centre on 0800 316 9800. The Customer Centre can also arrange for a full flow and pressure test to be carried out for a fee.

Asset location search



Property Searches

For your guidance:

- Assets other than vested water mains may be shown on the plan, for information only.
- If an extract of the public water main record is enclosed, this will show known public water mains in the vicinity of the property. It should be possible to estimate the likely length and route of any private water supply pipe connecting the property to the public water network.

Payment for this Search

A charge will be added to your suppliers account.

Asset location search



Property Searches

Further contacts:

Waste Water queries

Should you require verification of the invert levels of public sewers, by site measurement, you will need to approach the relevant Thames Water Area Network Office for permission to lift the appropriate covers. This permission will usually involve you completing a TWOSA form. For further information please contact our Customer Centre on Tel: 0845 920 0800. Alternatively, a survey can be arranged, for a fee, through our Customer Centre on the above number.

If you have any questions regarding sewer connections, budget estimates, diversions, building over issues or any other questions regarding operational issues please direct them to our service desk. Which can be contacted by writing to:

Developer Services (Waste Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0845 850 2777
Email: developer.services@thameswater.co.uk

Clean Water queries

Should you require any advice concerning clean water operational issues or clean water connections, please contact:

Developer Services (Clean Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0845 850 2777
Email: developer.services@thameswater.co.uk

NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates that no survey information is available



















Manhole Reference	Manhole Cover Level	Manhole Invert Level
6103	111.68	110.46
7202	n/a	n/a
6201	110.56	108.81
6203	114.53	108.16
7203	n/a	n/a
6102A	114.42	113.4
6004	106.97	101.98
6005	108	103.52
6101A	107.17	105.48
7102	106.92	106.01
7002	98.62	92.46
981H	n/a	n/a
9901	86.26	85.21
981F	n/a	n/a
981A	n/a	n/a
981E	n/a	n/a
081A	n/a	n/a
0903	79.76	78.28
0902	77.93	76.52
0806	n/a	n/a
0807	n/a	n/a
0803	74.07	72.42
0901	74.6	73.12
6802	n/a	n/a
681D	n/a	n/a
6902	97.02	n/a
601A	n/a	n/a
6002A	n/a	n/a
681B	n/a	n/a
681A	n/a	n/a
6803	n/a	n/a
79CC	n/a	n/a
70AI	n/a	n/a
79CA	n/a	n/a
7802	n/a	n/a
7902	90.76	85.96
7810	n/a	n/a
7101	100.3	94.96
7808	84.35	80.24
70AD	n/a	n/a
7801	85.54	82.52
7004	n/a	93.08
70AE	n/a	n/a
7104	n/a	n/a
8102	100.66	96.63
8101	100.58	n/a
8903	91.2	86.55
8802	83.95	80.81
8901	82.53	76.99
8804	82.36	76.61
8807	81.26	74.69
8003	98.3	94.52
8004	98.26	94.27
8902	91.61	87.33
981D	n/a	n/a
981C	n/a	n/a
9001	92.77	89.41
9002	92.89	89.64
9003	93.31	89.76
981B	n/a	n/a
9807	n/a	n/a
9803	n/a	n/a
981G	n/a	n/a

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ALS Sewer Map Key

Public Sewer Types (Operated & Maintained by Thames Water)

-  **Foul:** A sewer designed to convey waste water from domestic and industrial sources to a treatment works.
-  **Surface Water:** A sewer designed to convey surface water (e.g. rain water from roofs, yards and car parks) to rivers or watercourses.
-  **Combined:** A sewer designed to convey both waste water and surface water from domestic and industrial sources to a treatment works.
-  Trunk Surface Water
-  Trunk Foul
-  Storm Relief
-  Trunk Combined
-  Vent Pipe
-  Bio-solids (Sludge)
-  Proposed Thames Surface Water Sewer
-  Proposed Thames Water Foul Sewer
-  Gallery
-  Foul Rising Main
-  Surface Water Rising Main
-  Combined Rising Main
-  Sludge Rising Main
-  Proposed Thames Water Rising Main
-  Vacuum





Sewer Fittings

A feature in a sewer that does not affect the flow in the pipe. Example: a vent is a fitting as the function of a vent is to release excess gas.

-  Air Valve
-  Dam Chase
-  Fitting
-  Meter
-  Vent Column




Operational Controls

A feature in a sewer that changes or diverts the flow in the sewer. Example: A hydrobrake limits the flow passing downstream.

-  Control Valve
-  Drop Pipe
-  Ancillary
-  Weir






End Items

End symbols appear at the start or end of a sewer pipe. Examples: an Undefined End at the start of a sewer indicates that Thames Water has no knowledge of the position of the sewer upstream of that symbol, Outfall on a surface water sewer indicates that the pipe discharges into a stream or river.

-  Outfall
-  Undefined End
-  Inlet






Other Symbols

Symbols used on maps which do not fall under other general categories








-  /  Public/Private Pumping Station
-  Change of characteristic indicator (C.O.C.I.)
-  Invert Level
-  Summit

Areas

Lines denoting areas of underground surveys, etc.

-  Agreement
-  Operational Site
-  Chamber
-  Tunnel
-  Conduit Bridge

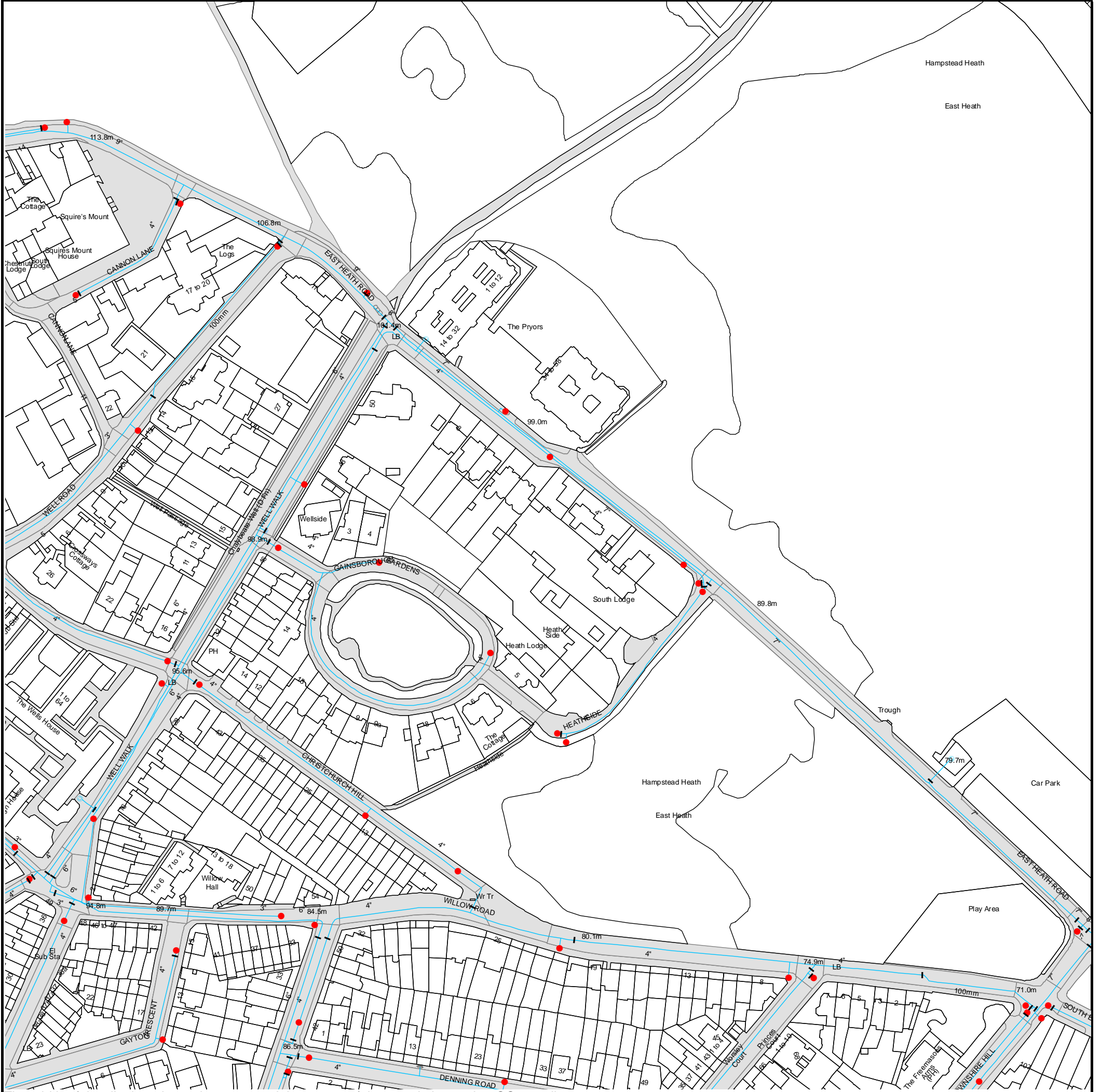
Other Sewer Types (Not Operated or Maintained by Thames Water)

-  Foul Sewer
-  Surface Water Sewer
-  Combined Sewer
-  Gully
-  Culverted Watercourse
-  Proposed
-  Abandoned Sewer

Notes:

- 1) All levels associated with the plans are to Ordnance Datum Newlyn.
- 2) All measurements on the plans are metric.
- 3) Arrows (on gravity fed sewers) or flecks (on rising mains) indicate direction of flow.
- 4) Most private pipes are not shown on our plans, as in the past, this information has not been recorded.
- 5) 'na' or '0' on a manhole level indicates that data is unavailable.
- 6) The text appearing alongside a sewer line indicates the internal diameter of the pipe in millimetres. Text next to a manhole indicates the manhole reference number and should not be taken as a measurement. If you are unsure about any text or symbology present on the plan, please contact a member of Property Insight on 0845 070 9148.

Asset Location Search Water Map - ALS/ALS Standard/2017_3647754



The width of the displayed area is 500 m and the centre of the map is located at OS coordinates 526860, 186057.

The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

Based on the Ordnance Survey Map with the Sanction of the controller of H.M. Stationery Office, License no. 100019345 Crown Copyright Reserved.



ALS Water Map Key

Water Pipes (Operated & Maintained by Thames Water)

- 4"** **Distribution Main:** The most common pipe shown on water maps. With few exceptions, domestic connections are only made to distribution mains.
- 16"** **Trunk Main:** A main carrying water from a source of supply to a treatment plant or reservoir, or from one treatment plant or reservoir to another. Also a main transferring water in bulk to smaller water mains used for supplying individual customers.
- 3" SUPPLY** **Supply Main:** A supply main indicates that the water main is used as a supply for a single property or group of properties.
- 3" FIRE** **Fire Main:** Where a pipe is used as a fire supply, the word FIRE will be displayed along the pipe.
- 3" METERED** **Metered Pipe:** A metered main indicates that the pipe in question supplies water for a single property or group of properties and that quantity of water passing through the pipe is metered even though there may be no meter symbol shown.
- Transmission Tunnel:** A very large diameter water pipe. Most tunnels are buried very deep underground. These pipes are not expected to affect the structural integrity of buildings shown on the map provided.
- Proposed Main:** A main that is still in the planning stages or in the process of being laid. More details of the proposed main and its reference number are generally included near the main.

PIPE DIAMETER	DEPTH BELOW GROUND
Up to 300mm (12")	900mm (3')
300mm - 600mm (12" - 24")	1100mm (3' 8")
600mm and bigger (24" plus)	1200mm (4')

Valves

- General Purpose Valve
- Air Valve
- Pressure Control Valve
- Customer Valve

Hydrants

- Single Hydrant

Meters

- Meter

End Items

Symbol indicating what happens at the end of a water main.

- Blank Flange
- Capped End
- Emptying Pit
- Undefined End
- Manifold
- Customer Supply
- Fire Supply

Operational Sites

- Booster Station
- Other
- Other (Proposed)
- Pumping Station
- Service Reservoir
- Shaft Inspection
- Treatment Works
- Unknown
- Water Tower

Other Symbols

- Data Logger

Other Water Pipes (Not Operated or Maintained by Thames Water)

- Other Water Company Main:** Occasionally other water company water pipes may overlap the border of our clean water coverage area. These mains are denoted in purple and in most cases have the owner of the pipe displayed along them.
- Private Main:** Indicates that the water main in question is not owned by Thames Water. These mains normally have text associated with them indicating the diameter and owner of the pipe.

Terms and Conditions

All sales are made in accordance with Thames Water Utilities Limited (TWUL) standard terms and conditions unless previously agreed in writing.

1. All goods remain in the property of Thames Water Utilities Ltd until full payment is received.
2. Provision of service will be in accordance with all legal requirements and published TWUL policies.
3. All invoices are strictly due for payment 14 days from due date of the invoice. Any other terms must be accepted/agreed in writing prior to provision of goods or service, or will be held to be invalid.
4. Thames Water does not accept post-dated cheques-any cheques received will be processed for payment on date of receipt.
5. In case of dispute TWUL's terms and conditions shall apply.
6. Penalty interest may be invoked by TWUL in the event of unjustifiable payment delay. Interest charges will be in line with UK Statute Law 'The Late Payment of Commercial Debts (Interest) Act 1998'.
7. Interest will be charged in line with current Court Interest Charges, if legal action is taken.
8. A charge may be made at the discretion of the company for increased administration costs.

A copy of Thames Water's standard terms and conditions are available from the Commercial Billing Team (cashoperations@thameswater.co.uk).

We publish several Codes of Practice including a guaranteed standards scheme. You can obtain copies of these leaflets by calling us on 0800 316 9800

If you are unhappy with our service you can speak to your original goods or customer service provider. If you are not satisfied with the response, your complaint will be reviewed by the Customer Services Director. You can write to her at: Thames Water Utilities Ltd. PO Box 492, Swindon, SN38 8TU.

If the Goods or Services covered by this invoice falls under the regulation of the 1991 Water Industry Act, and you remain dissatisfied you can refer your complaint to Consumer Council for Water on 0121 345 1000 or write to them at Consumer Council for Water, 1st Floor, Victoria Square House, Victoria Square, Birmingham, B2 4AJ.

Ways to pay your bill

Credit Card	BACS Payment	Telephone Banking	Cheque
<p>Call 0845 070 9148 quoting your invoice number starting CBA or ADS / OSS</p>	<p>Account number 90478703 Sort code 60-00-01 A remittance advice must be sent to: Thames Water Utilities Ltd., PO Box 3189, Slough SL1 4WW. or email ps.billing@thameswater.co.uk</p>	<p>By calling your bank and quoting: Account number 90478703 Sort code 60-00-01 and your invoice number</p>	<p>Made payable to 'Thames Water Utilities Ltd' Write your Thames Water account number on the back. Send to: Thames Water Utilities Ltd., PO Box 3189, Slough SL1 4WW or by DX to 151280 Slough 13</p>

Thames Water Utilities Ltd Registered in England & Wales No. 2366661 Registered Office Clearwater Court, Vastern Rd, Reading, Berks, RG1 8DB.



Search Code

IMPORTANT CONSUMER PROTECTION INFORMATION

This search has been produced by Thames Water Property Searches, Clearwater Court, Vastern Road, Reading RG1 8DB, which is registered with the Property Codes Compliance Board (PCCB) as a subscriber to the Search Code. The PCCB independently monitors how registered search firms maintain compliance with the Code.

The Search Code:

- provides protection for homebuyers, sellers, estate agents, conveyancers and mortgage lenders who rely on the information included in property search reports undertaken by subscribers on residential and commercial property within the United Kingdom
- sets out minimum standards which firms compiling and selling search reports have to meet
- promotes the best practise and quality standards within the industry for the benefit of consumers and property professionals
- enables consumers and property professionals to have confidence in firms which subscribe to the code, their products and services.

By giving you this information, the search firm is confirming that they keep to the principles of the Code. This provides important protection for you.

The Code's core principles

Firms which subscribe to the Search Code will:

- display the Search Code logo prominently on their search reports
- act with integrity and carry out work with due skill, care and diligence
- at all times maintain adequate and appropriate insurance to protect consumers
- conduct business in an honest, fair and professional manner
- handle complaints speedily and fairly
- ensure that products and services comply with industry registration rules and standards and relevant laws
- monitor their compliance with the Code

Complaints

If you have a query or complaint about your search, you should raise it directly with the search firm, and if appropriate ask for any complaint to be considered under their formal internal complaints procedure. If you remain dissatisfied with the firm's final response, after your complaint has been formally considered, or if the firm has exceeded the response timescales, you may refer your complaint for consideration under The Property Ombudsman scheme (TPOs). The Ombudsman can award compensation of up to £5,000 to you if he finds that you have suffered actual loss as a result of your search provider failing to keep to the Code.

Please note that all queries or complaints regarding your search should be directed to your search provider in the first instance, not to TPOs or to the PCCB.

TPOs Contact Details

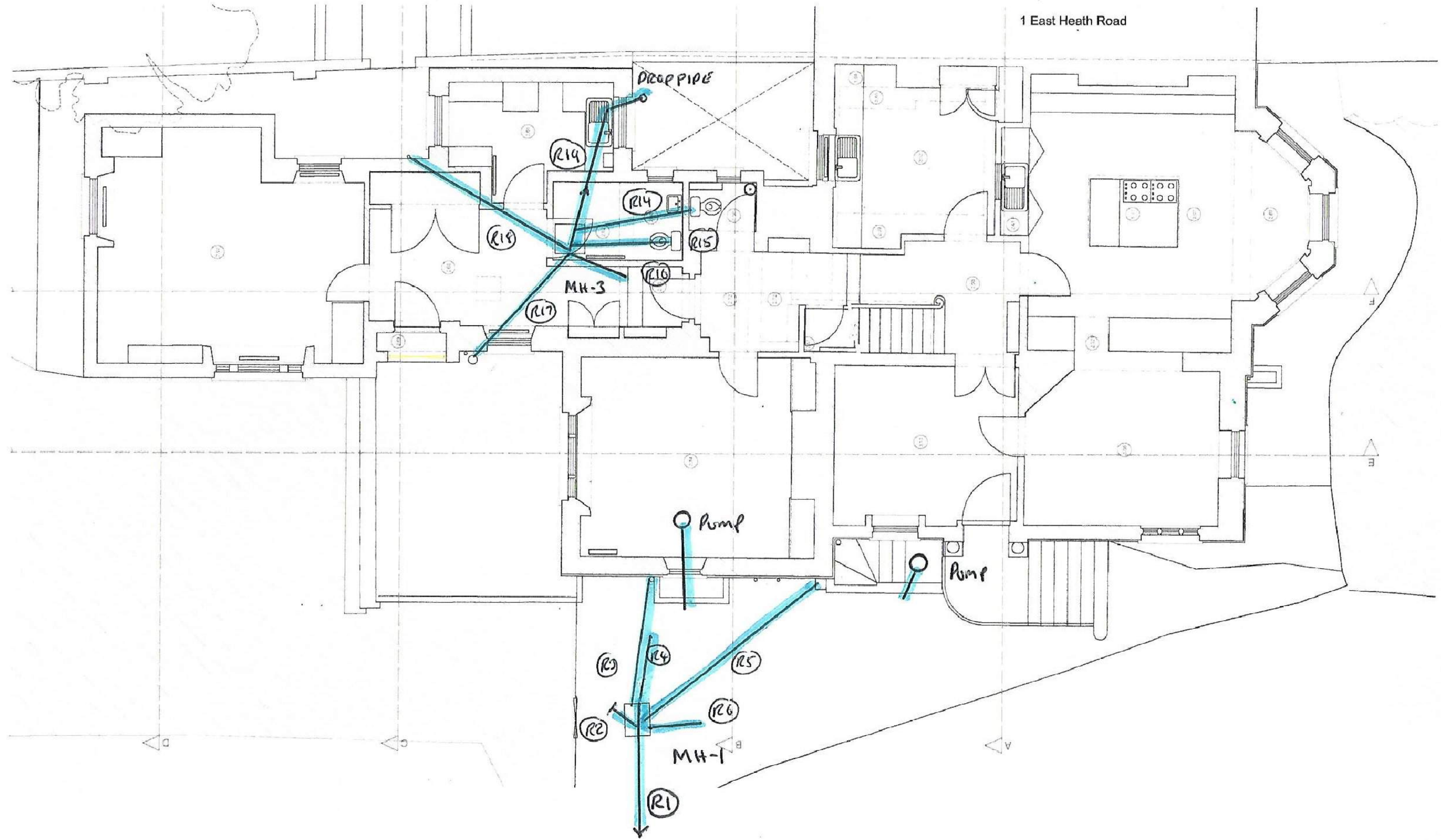
The Property Ombudsman scheme
Milford House
43-55 Milford Street
Salisbury
Wiltshire SP1 2BP
Tel: 01722 333306
Fax: 01722 332296
Email: admin@tpos.co.uk

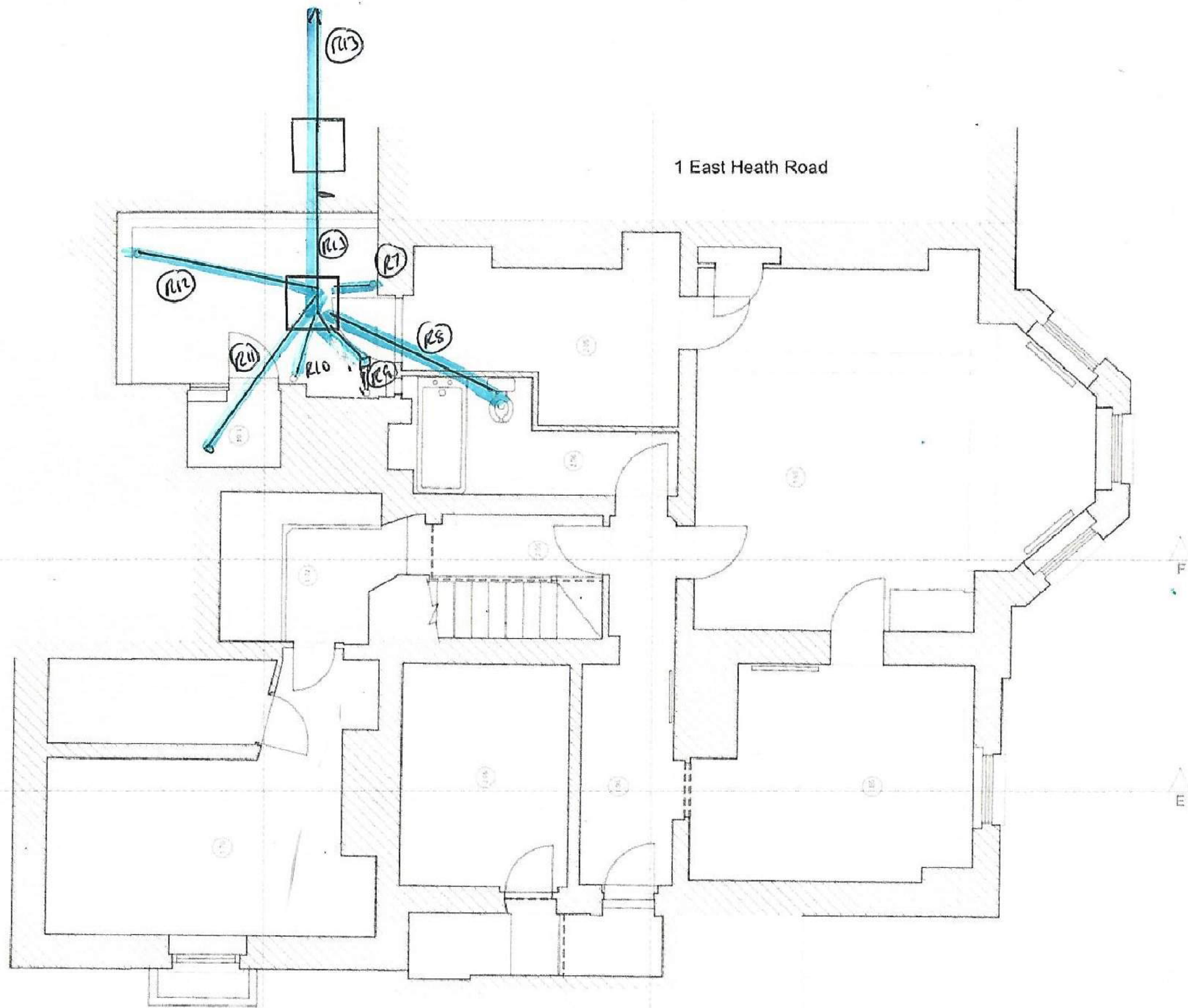
You can get more information about the PCCB from www.propertycodes.org.uk

PLEASE ASK YOUR SEARCH PROVIDER IF YOU WOULD LIKE A COPY OF THE SEARCH CODE

Appendix D – CCTV Survey

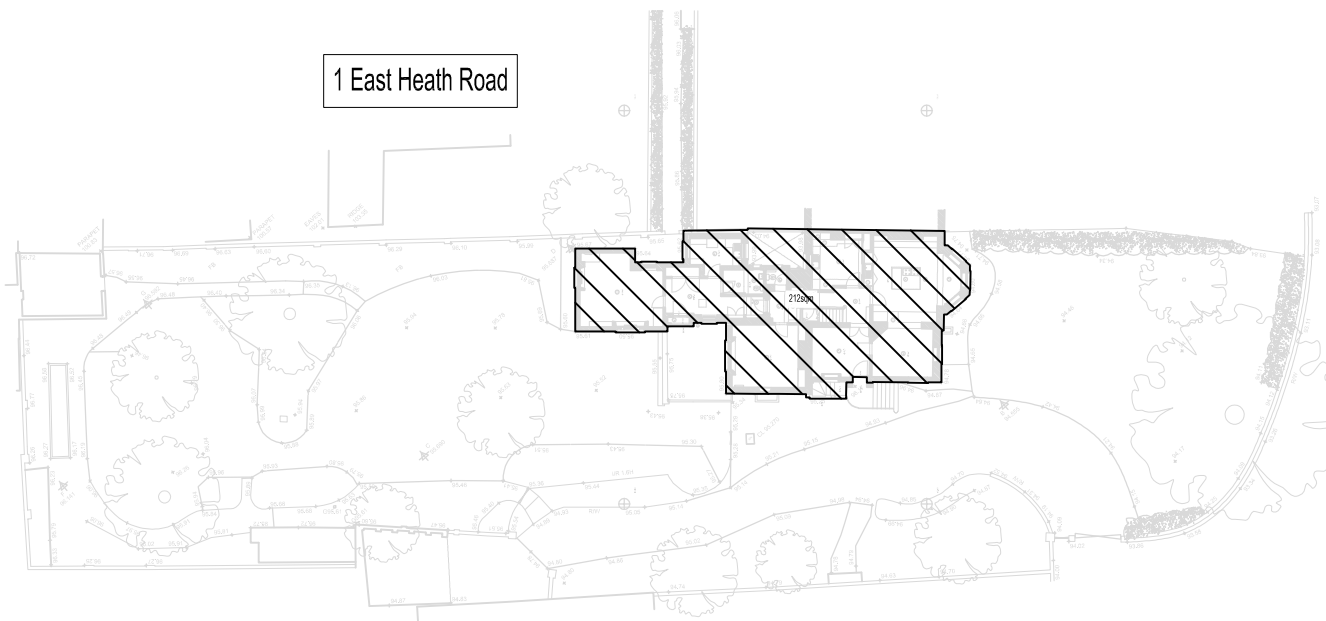
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
Appendix E – Existing Area Take-Off Drawing

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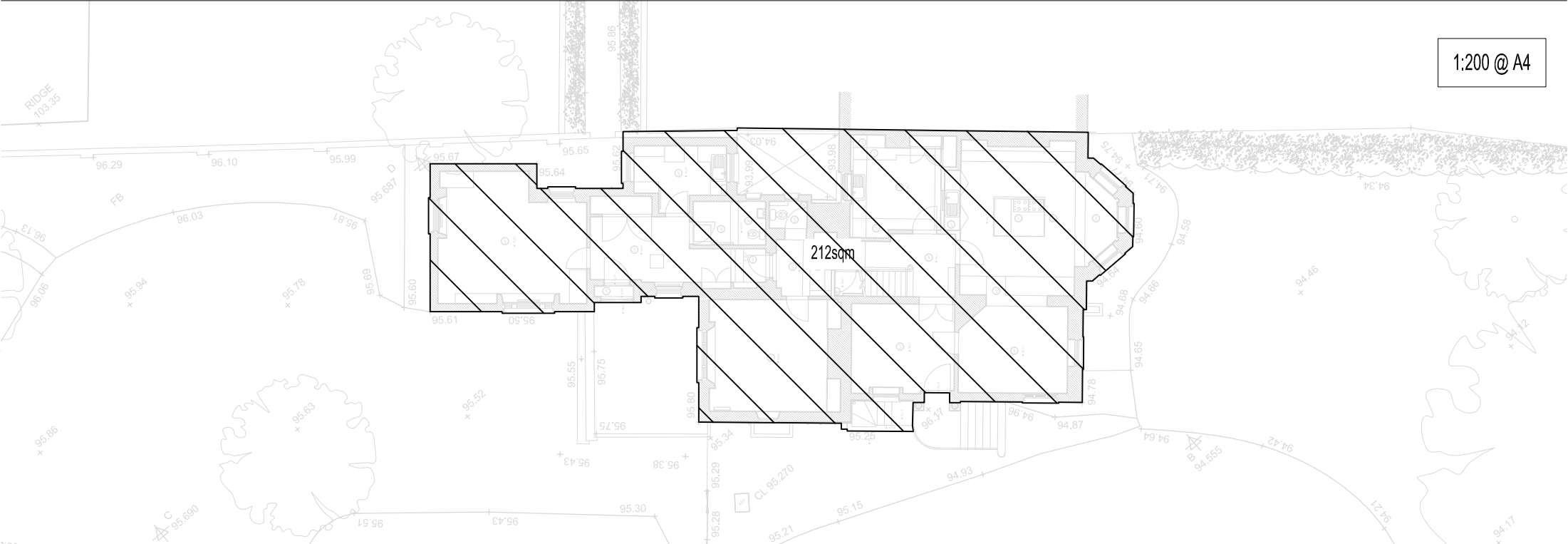


Heathside

Key

 Positively Drained Impermeable Area

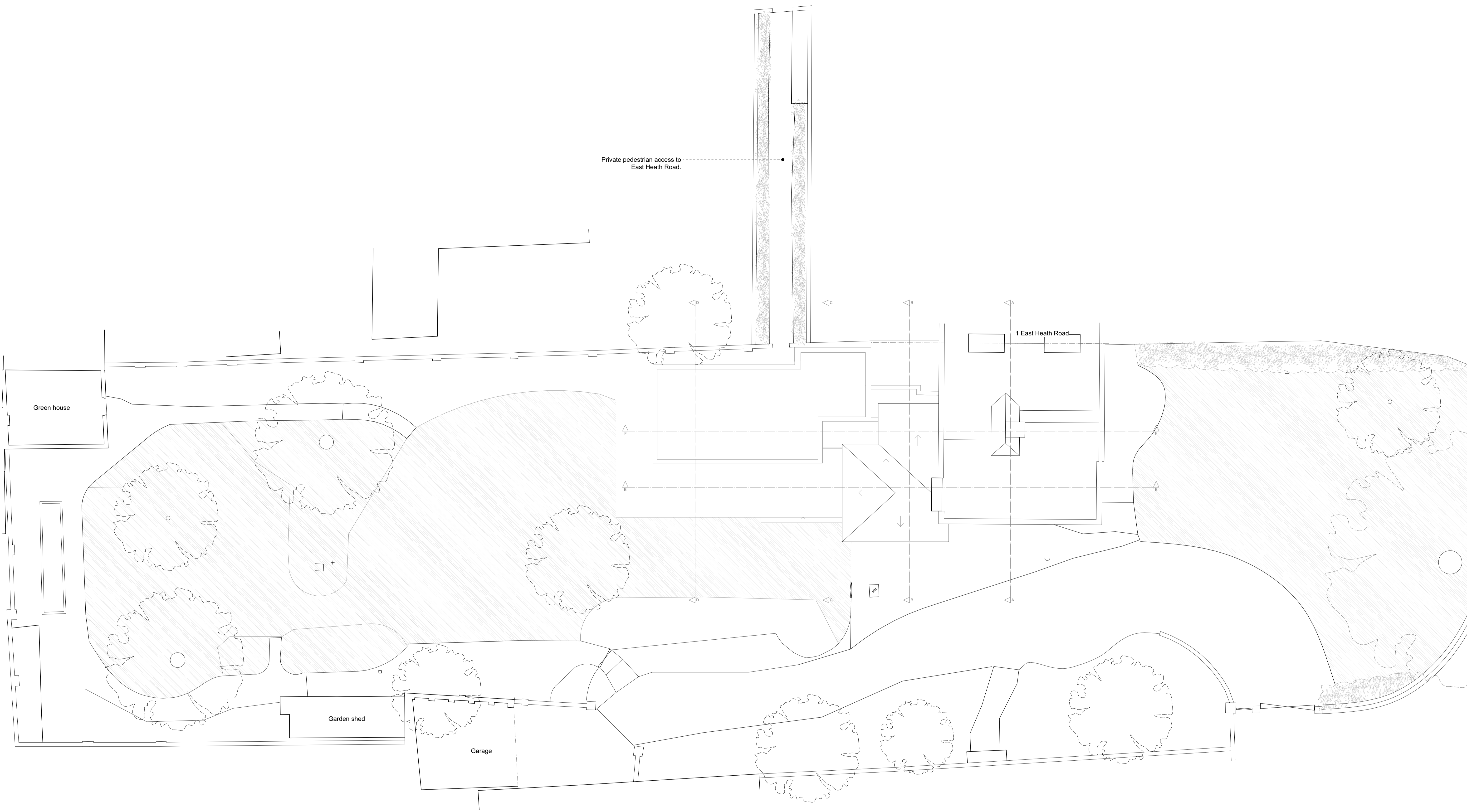
1 Heath Side



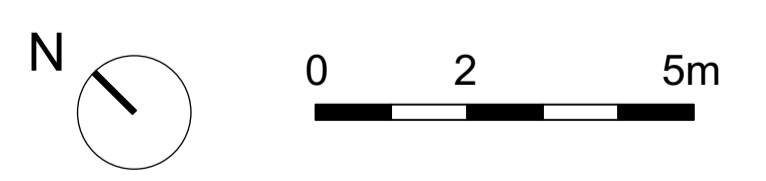
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B
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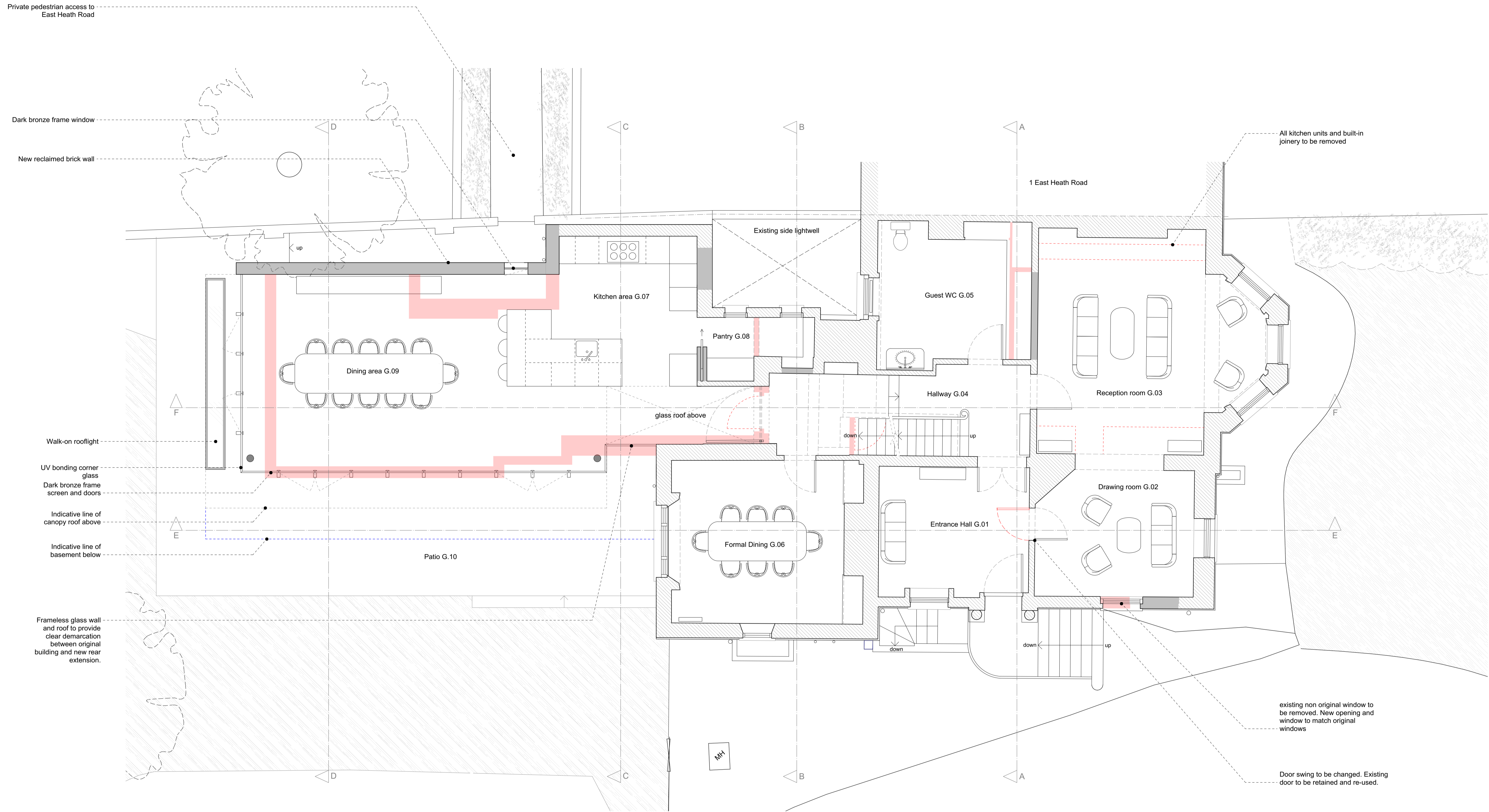
Appendix F – Architects Proposals



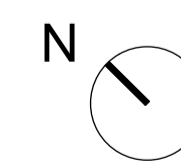
No.	Revision.	Date.



<p>PLANNING ISSUE</p> <p>All dimensions must be confirmed on site and verified with the Architect. Any discrepancies on the drawing must be reported to the Architect prior to any works being carried out on site.</p> <p>DO NOT SCALE OFF THIS DRAWING, only use stated dimensions for setting out purposes.</p> <p>The copyright of this schedule / drawing remains with the Architect. No part of this schedule / drawing may be reproduced in any form or by any means without the written permission of Greenway Architects.</p>		<p>Project: South Lodge, Heathside, London NW3</p>	
		<p>Drawing Title: Proposed site plan</p>	
<p>Drawing No.: 1938 - 200</p>		Date: 19/06/2017	Scale: 1:200 @ A3 1:100 @ A1
<p>greenwayarchitects</p> <p>Branch Hill Mews, London NW3 7LT Tel +44 (0)20 7435 6091 www.greenwayarchitects.co.uk</p>			



No.	Revision.	Date.



- Existing walls and structure
- Proposed walls and structure
- Existing walls and fixtures to be demolished or removed

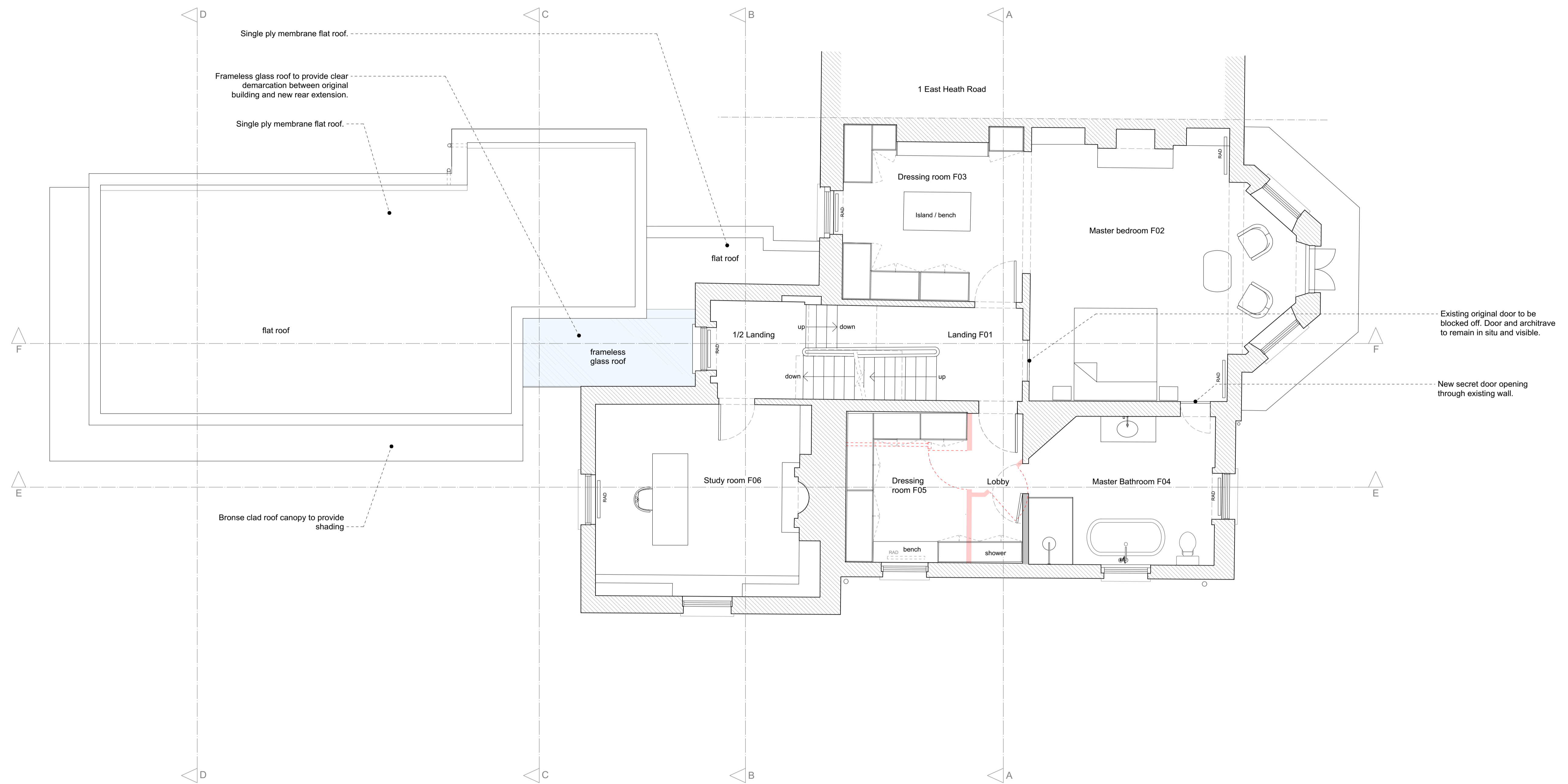
PLANNING ISSUE

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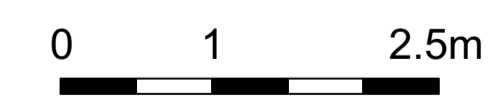
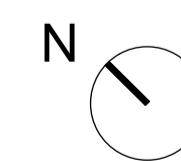
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- Existing walls and structure
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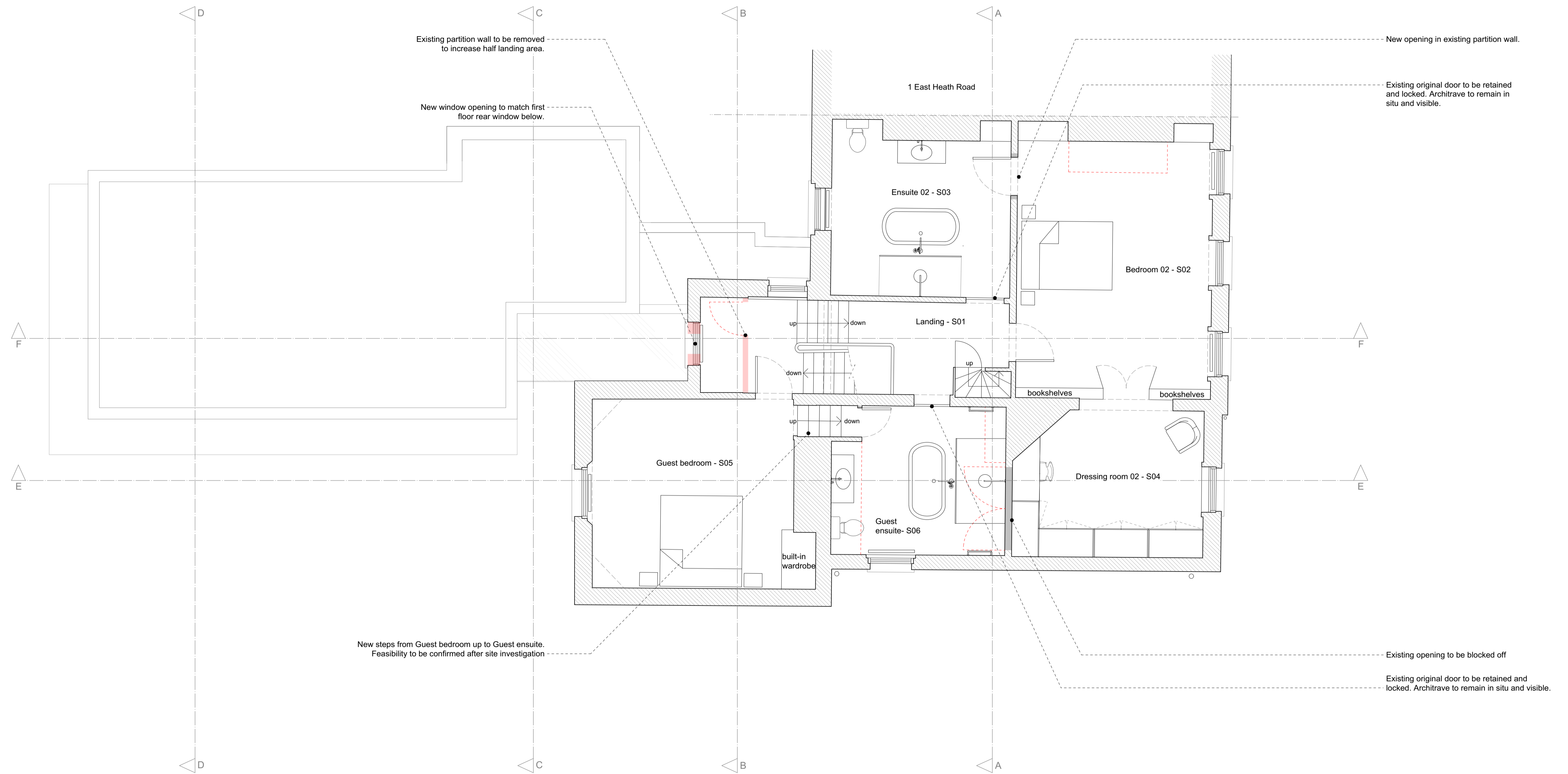
Drawing Title:
Proposed first floor

Drawing No.:
1938 - 202

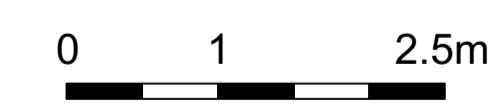
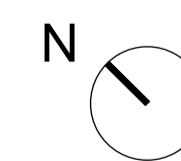
Date
19/06/2017

Scale
1:100 @ A3
1:50 @ A1

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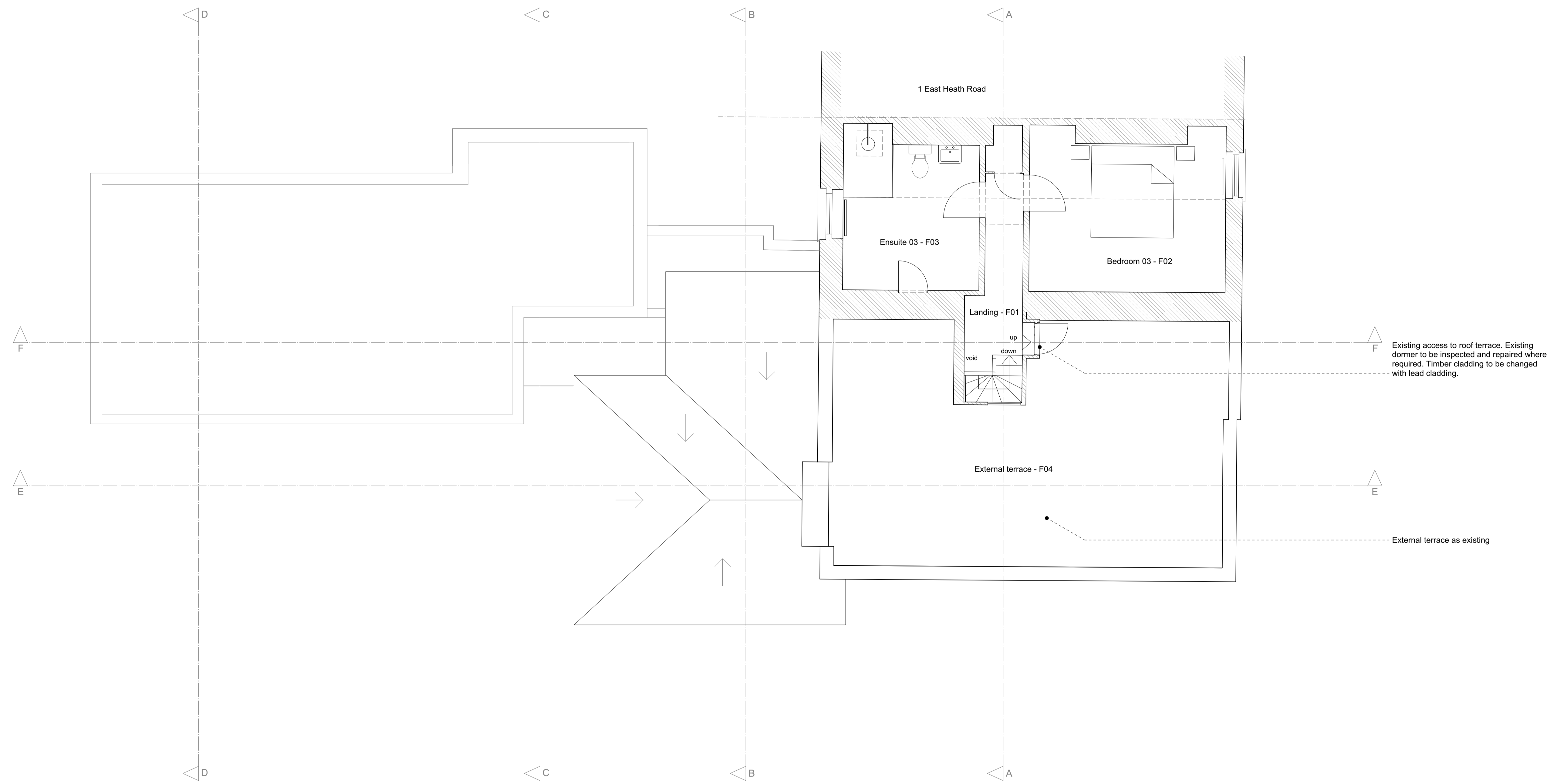
Drawing Title:
Proposed second floor

Drawing No.:
1938 - 203

Date
19/06/2017

Scale
1:100 @ A3
1:50 @ A1

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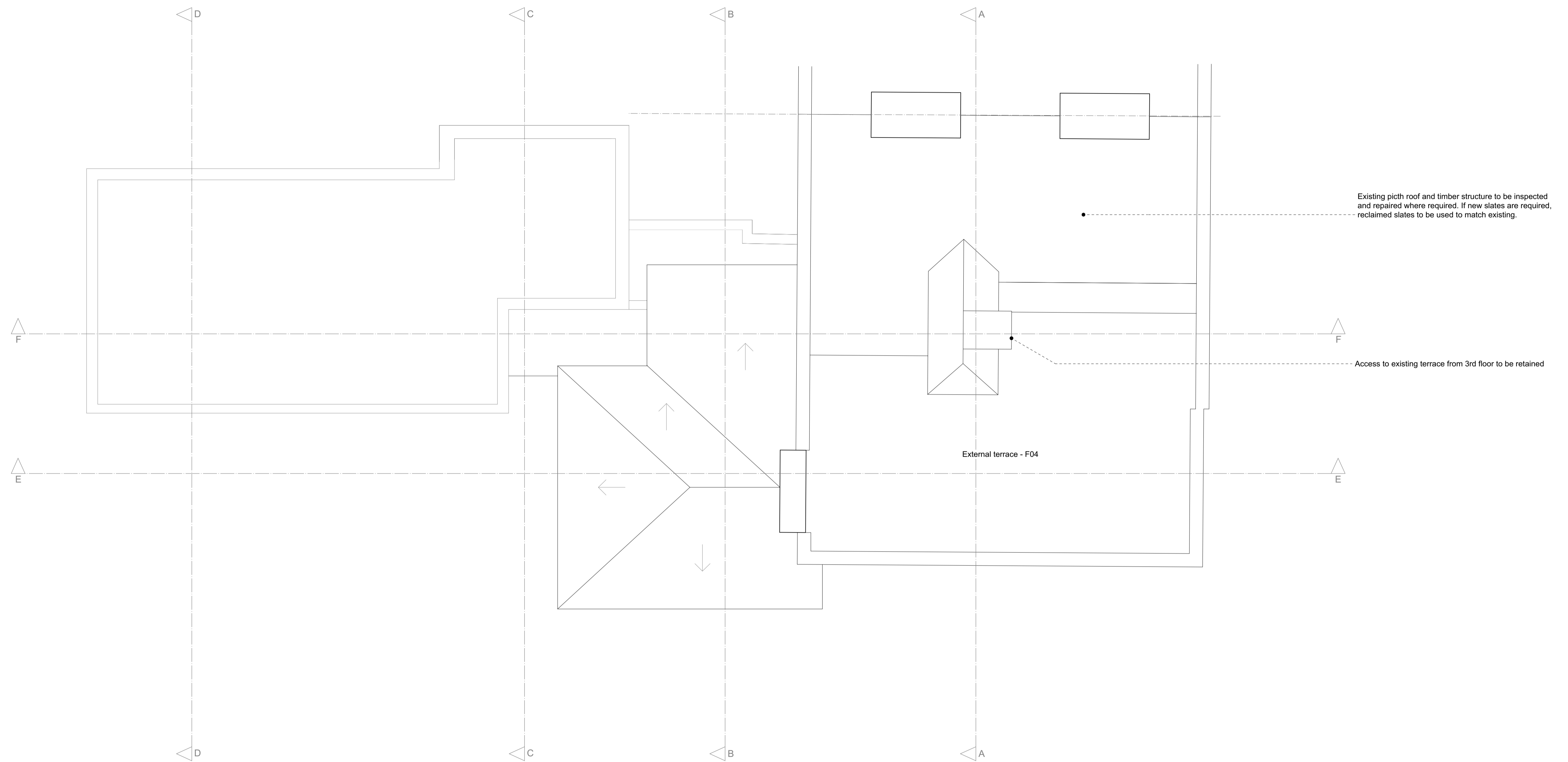
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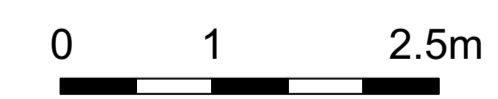
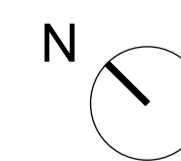
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- Existing walls and structure
- Proposed walls and structure
- Existing walls and fixtures to be demolished or removed

PLANNING ISSUE		Project: South Lodge, Heathside, London NW3	
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		Drawing No.: 1938 - 204	
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-  Existing walls and structure
-  Proposed walls and structure
-  Existing walls and fixtures to be demolished or removed

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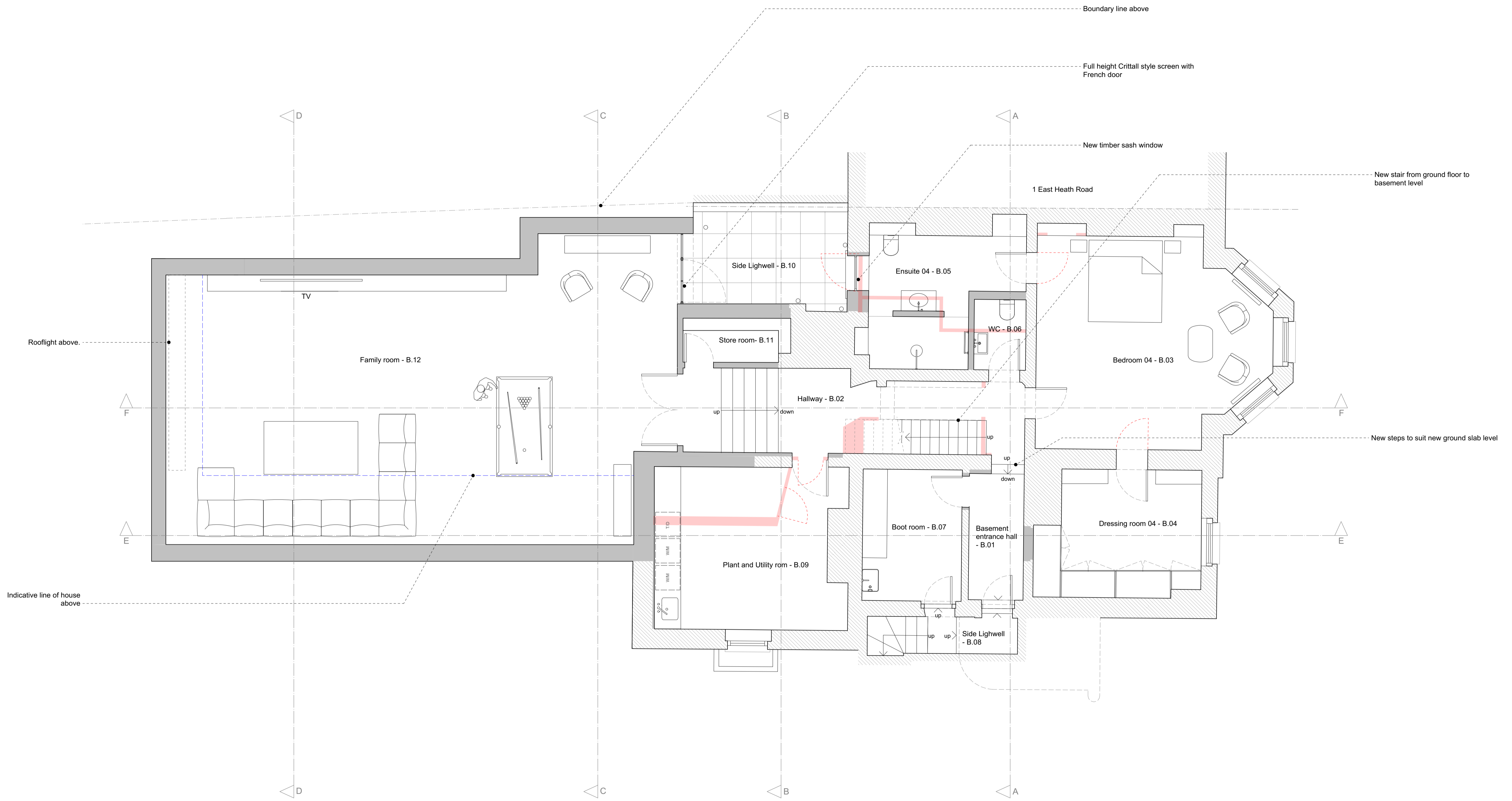
Drawing Title:
Proposed roof plan

Drawing No.:
1938 - 205

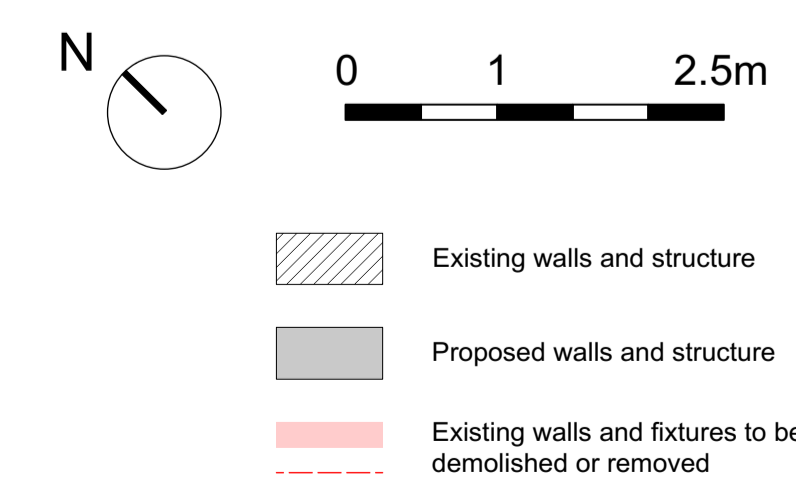
Date
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