



Basement Impact Assessment

(Surface Water and Groundwater)

Site address 38 Dartmouth Park Road

London

NW5 1SX

Site coordinates 528731, 186084

Report prepared for Silje Gundersen

Report reference 74731R1

Report status FINAL

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Report author David South

Consultant

Report checker Alan White

Principal Consultant

Report reviewers Dr. Paul Ellis

Managing Director (CGeol)

Michelle Gregg

Principal Drainage Engineer (C.WEM)







Executive Summary

	High	
Impacts to surface water flows and related flooding	Medium	
110001116	Low	
	High	
2. Impacts to groundwater and related flooding	Medium	
	Low	
	High	
3. Overall risk posed by Site	Medium	
	Low	

Key:

High	There is a high potential risk
Medium	There is a medium potential risk
Low	There is a low potential risk

The hydrological and hydrogeological setting of 38 Dartmouth Park Road has been considered in the context of the proposed Site development, including the lowering of an existing basement level by 0.2m and the addition of a new lightwell. The Site setting is summarised as follows:

- Development proposals comprise the extension of the existing residential flat into the currently unused basement as well as the addition of a lightwell and the lowering of the existing floor by 0.2m to 2.3 mbgl to incorporate a new cavity drain membrane system which will connect to the existing sewer.
- The Site is underlain by London Clay bedrock, without any mapped superficial deposits.
- Nearby Site investigation was undertaken (65m west of the Site) which struck groundwater at a depth of 2.7 to 3.2m bgl. This was logged as silty/sandy clay within the clay and considered likely to be the result of thin, isolated permeable lenses within the London Clay bedrock.
- The London Clay is classed as an Unproductive Strata.
- The risk of fluvial flooding at the Site is Very Low.
- The risk of pluvial flooding at the Site is Low to High.
- The Lost River Fleet has been identified within close proximity to the Site and is likely located west of the Site.

The information reviewed suggests that the underlying London Clay deposits are unlikely to support a significant water table however nearby site investigation (65m west of the Site)

suggests there is also the potential for perched water associated with isolated, lower permeability horizons within the London Clay bedrock

As such the extension of the existing 2.1m depth basement by a further 0.2m is unlikely to impede groundwater flow or increase the risk of groundwater flooding.

It is considered unlikely that the basement development will impact surface water flows and volumes since the proposed development does not involve an increase in impermeable areas.

Recommendations

- It is recommended that flood resistance and resilience measures are implemented
 as part of the overall basement and wider development design. This includes
 measures to prevent water ingress and to reduce flood damage should flooding
 occur. The proposed development includes an internal staircase to reduce the risk
 of flooding.
- The threshold to the exterior basement access should be set at a higher elevation than the predicted surface water flood elevation to prevent ingress into the basement area.

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1. Introduction

1.1 Background

GeoSmart Information Ltd was commissioned by Silje Gundersen in April 2021 to undertake the groundwater and surface water aspects of a Basement Impact Assessment (BIA) for the proposed development at 38 Dartmouth Park Road, London, NW5 1SX (the Site). The Site is located at national grid reference (NGR) 528731, 186084 within the London Borough of Camden. Existing and proposed Site plans and drawings are provided in Appendix A.

1.2 Objective

This document comprises a desk based assessment of the potential impact of the proposed basement development on surface water and groundwater flows and flooding risks. The report has been designed to support a planning submission for the proposed development.

1.3 Scope of works

The scope of works undertaken includes:

- An outline of the hydrological and hydrogeological conditions with relevance to construction of the basement at the Site.
- An assessment of the impacts of the proposed development on surface water and groundwater flows and levels.
- Assessment will be presented using the clearly-defined reporting framework as outlined in the widely referenced Camden CPG4 guidance for BIAs. This report will consider the following sections:
 - 1) **Screening** first stage in assessing the impact of a proposed basement development is to recognise what issues are relevant to the proposed site.
 - 2) **Scoping** identify the potential impacts for each of the matters of concern identified in the screening stage.
 - 3) **Recommendations** recommendations are made based on the outcome of the assessment.

2. Site Setting

2.1 Location Description

The Site is located at 38 Dartmouth park Road in a setting of residential land use. It is bound to the southeast by Dartmouth Park Road, the north west by residential gardens and with residential buildings bounding the property to the northeast and south west. The Site is currently used within a residential capacity and consists of a residential building including an unused basement level (Appendix A).

According to EA 50cm LiDAR data, the level of the Site is between 48.4 and 50 mAOD with the Site falling gradually towards the south east but with an area of higher ground located adjacent to the south eastern boundary (Appendix B).

2.2 Proposed development

Development proposals comprise the extension of the existing residential flat into the currently unused basement as well as the addition of a lightwell and the lowering of the existing floor by 0.2m to incorporate a new cavity drain membrane system which will connect to the existing sewer (Appendix A). The existing basement floor to ceiling height is 2.1m.

The development drawings available to date do not include details of construction methodology and waterproofing of the basement itself, although it is understood that best practice will be followed including waterproofing of the basement.

The effect of the overall development will result in an increase in number of occupants and/or users of the building and but will not result in the change of use, nature or times of occupation. The estimated lifespan of the development is 100 years.

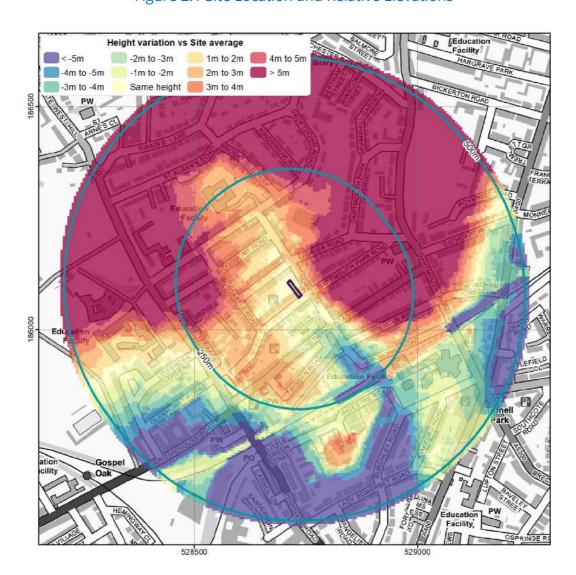


Figure 2.1 Site Location and Relative Elevations

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2.3 Ground Conditions

The following geological information is provided by the British Geological Survey (BGS) 1:50,000 geology map (BGS, 2021a), BGS Lexicon (BGS, 2021b), UK Soil Observatory map (BGS, 2021d) and the Environment Agency (2021).

The nearest BGS borehole record within the same geological strata as the Site on the BGS Borehole Data Archive at the Geolndex (Onshore) website is located c. 250m south west of the Site (TQ28NE22). This borehole shows the underlying geology to comprise of brown clay to a depth of 1.5 m below ground level (bgl) underlain by brown gravel to a depth of 1.83m bgl and blue clay to a depth of 9.14 m bgl (BGS, 2021c).

The local superficial deposits and bedrock are mapped in Figure 2.2 and 2.3. Published geological records (BGS, 2021) state that the Site is not underlain by any superficial deposits.

The bedrock geology is the London Clay Formation (BGS, 2021a) which is classified as Unproductive Strata (EA, 2021). London Clay bedrock mainly comprises bioturbated or poorly laminated, blue-grey or grey-brown, slightly calcareous, silty to very silty clay, clayey silt and sometimes silt, with some layers of sandy clay. (BGS, 2021b). The London Clay is unlikely to support significant groundwater flow (EA, 2021).

Site investigation was undertaken in August 2007 by Cole Easdon Consultants (Appendix D) for a nearby site on Dartmouth park Road (65m west of the site) which confirmed the underlying geology to consist of made ground to a depth of 0.2 to 0.3m bgl underlain by clay to a depth of 5 m bgl where the boreholes ended.

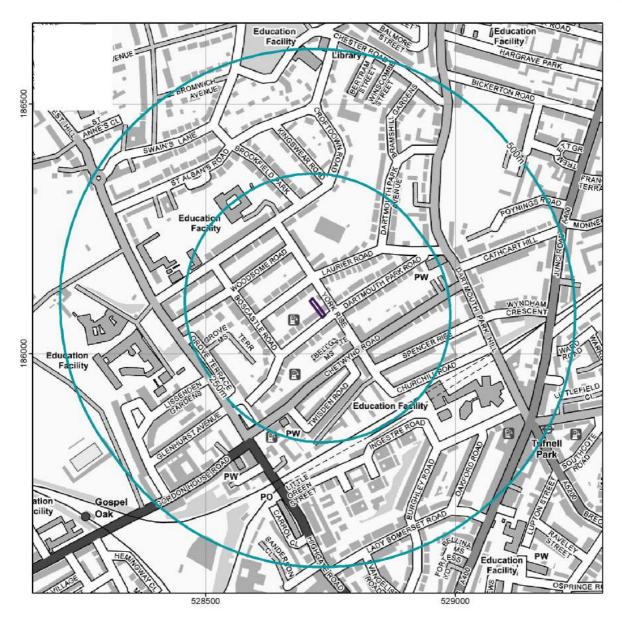
2.4 Groundwater

GeoSmart's GW5 groundwater dataset shows the Site as having a negligible risk of flooding from groundwater at the surface. This indicates that groundwater levels are consistently below ground surface.

The nearby TQ28NE22 borehole remained dry throughout.

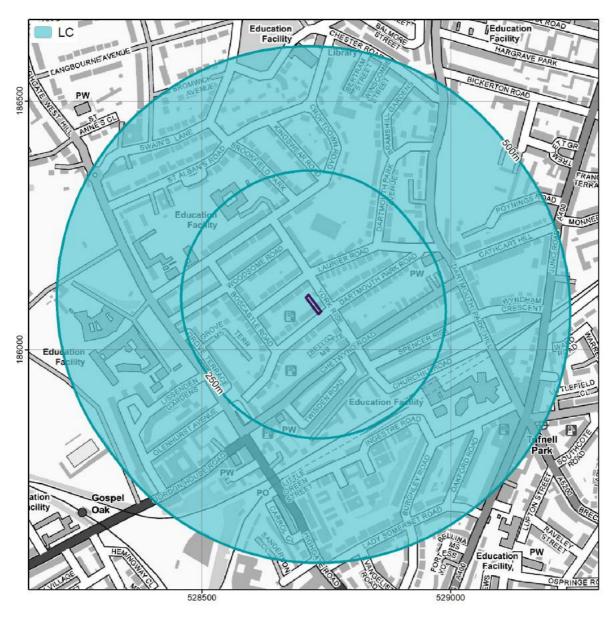
Site investigation from nearby (65m west) was undertaken which struck groundwater at a depth of 2.7 to 3.2m bgl. This is considered likely to be the result of thin, isolated permeable lenses within the London Clay bedrock.

Figure 2.2 Superficial Map



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Figure 2.3 Bedrock Map



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2.5 Relevant Local Guidance

2.6.1 Camden Planning Guidance Basements (2018)

Basement development may affect groundwater flows, and even though the displaced
water will find a new course around the area of obstruction this may have other
consequences for nearby properties, trees, etc. Given the nature of the ground in
many higher parts of the borough, or those where streams once flowed, basement
development may have the potential to divert or displace groundwater which can
cause a rise in groundwater and cause flooding, upstream of the development, whilst
immediately downstream the groundwater level may decline, which may affect wells,
springs and ponds.

3. Flood Risk

3.1 Fluvial Flood Risk

According to the Environment Agency's (EA) Flood Map for Planning Purposes (Figure 3.1), the Site is located within Flood Zone 1 and is classified as being at Low probability of fluvial flooding.

According to the EA's Risk of Flooding from Rivers and the Sea (RoFRS) mapping, which considers the crest height, standard of protection and condition of defences, the flood risk from Rivers and the Sea is Very Low. Consequently, the basement is considered to be at Very Low risk of fluvial flooding.

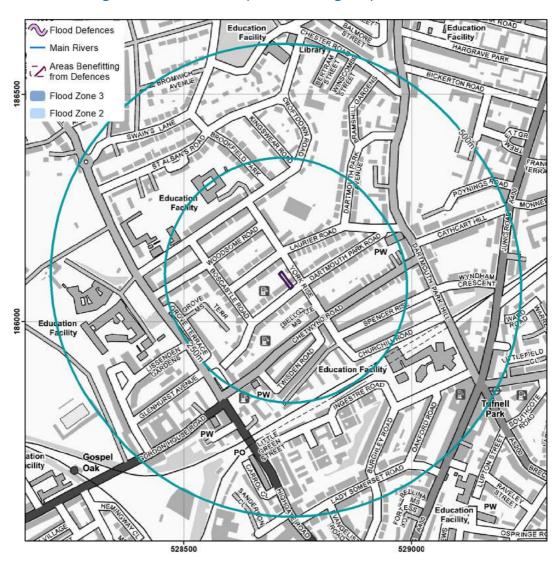


Figure 3.1 EA Flood Map for Planning Purposes (EA, 2021)

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3.2 Surface Water Features

There are no mapped surface water features within 500 m of the Site (Figure 3.3).

The lost River Fleet is mapped (Appendix C) as nearby the Site however its exact location is uncertain. Lost rivers are subterranean rivers that were built over and now flow through underground culverts with some used as part of London's sewerage system.

Given the mapped surface water flood risk in the area the lost River Fleet potentially runs within close proximity to the Site. As the site currently has a basement it is considered unlikely that the river runs directly underneath the Site and Figure 3.2 shows the approximate location of the Lost River Fleet to be west of the Site.

As the Site is underlain by London Clay it is not considered to be in continuity with the River Fleet.

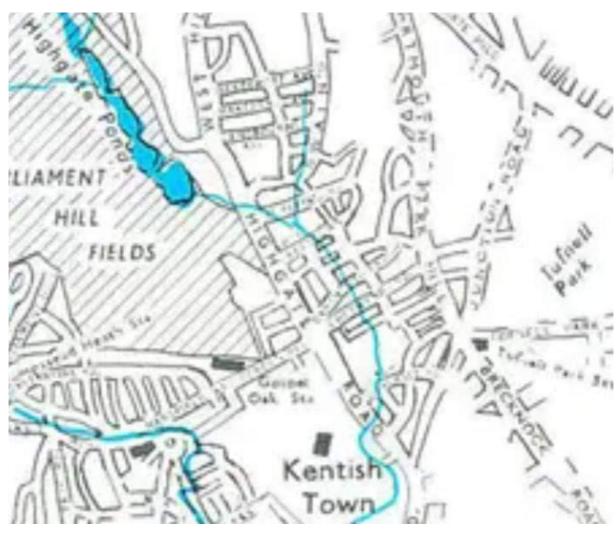


Figure 3.2 Lost Rivers of London (London's Lost Rivers, 2021)

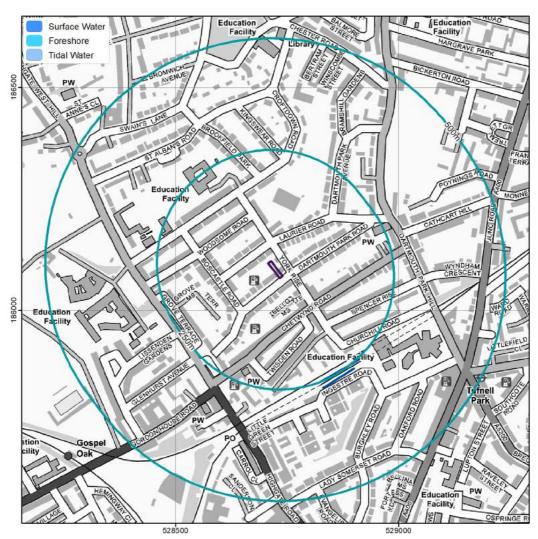


Figure 3.3 EA Surface Water Features (OS, 2021)

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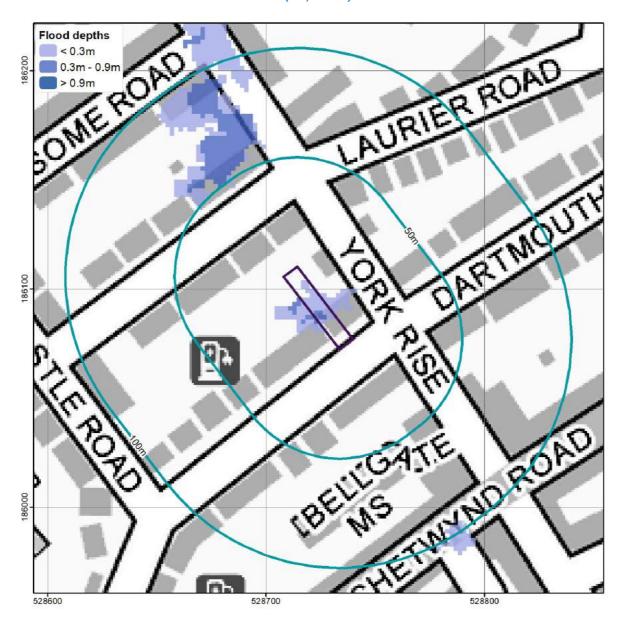
3.3 Pluvial (Surface Water) Flood Risk

According to the EA's Risk of Flooding from Surface Water (pluvial) mapping (Figure 3.4), there is a Low to High risk of pluvial flooding across the Site. There are areas located at High risk of pluvial flooding to the north of the existing development where flood depths are mostly under 0.3m deep but could be up to 0.9m during the 1 in 100 year event. The Site is also located on a mapped overland flow route, likely related to the lost River Fleet.

The proposed basement entrance is located to the south of the existing building and is therefore not located within an area at risk of surface water flooding during the 100 year event.

The SFRA does not indicate reported incidents of historical surface water flooding within 100m of the Site (URS, 2014).

Figure 3.4 EA Risk of Flooding from Surface Water (pluvial) 1 in 100 year depth Map (EA, 2021)



3.4 Groundwater Flood Risk

GeoSmart's Groundwater Flood Risk (GW5) Map (Figure 3.5) provides a preliminary indication of groundwater flood risk at the surface. The Site is at negligible risk of groundwater flooding at surface from regional scale mechanisms.

As described in Section 2.4, the Site is not underlain by superficial deposits and London Clay bedrock is classified as Unproductive Strata.

Site investigation from nearby on Dartmouth Park Road (65m west) was undertaken which struck groundwater at a depth of 2.7 to 3.2m bgl within the London Clay. This is considered likely to be a permeable lens within the underlying London Clay and therefore unlikely to hold a significant water table.

It is not known whether there are any other basements on Dartmouth Park Road or in the immediate vicinity. If other basements are present the cumulative impacts on groundwater should be investigated.

3.5 Sewer Flood Risk

Figures 5a and 5b of the SFRA shows the Site is not located in an area with historic sewer flood incidents (URS, 2014).

Note that in the event of a leak in the sewer or water main, service trenches could provide a potential pathway for water to enter the basement. It is therefore recommended that waterproof construction methods are used on the basement.

3.6 Flooding from Artificial Sources

According to the EA's Risk of Flooding from Reservoir mapping the Site is at risk of flooding from reservoirs (EA, 2021). The Site could be affected by flooding from Highgate Ponds 2 and 3 as well as Maiden Lane reservoir. Flood depths could be over 2m and velocities between 0.5 and 2 m/s.

The risk of reservoir flooding is related to the failure of a large reservoir (holding over 25,000 m3 of water) and is based on the worst-case scenario. Reservoir flooding is extremely unlikely to occur (EA, 2021).

The Site is not within a groundwater Source Protection Zone (EA, 2021). As above, flooding from leaking water mains/sewer within Dartmouth Park Road could potentially affect the Site depending on their depths.

Education Education Facility Flood risk High Moderate Low Negligible Gospel

Figure 3.5 GeoSmart GW5 Groundwater Flood Risk Map (GeoSmart, 2021)

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4. Basement Impact Assessment:

The following sections follow guidance discussed in the relevant sections of the Camden Planning Guidance: Basements (2018). This provides a clearly defined reporting framework against which to consider potential matters of concern and to scope out further work required.

4.1 Screening

4.1.1 Groundwater			
Impact Question	Answer	Justification	Reference
1a. Is the site located directly above an aquifer?	No	The underlying bedrock comprises the London Clay (Aquifer Designation - Unproductive Strata).	EA (2021)
1b. Will the proposed basement extend beneath the water table surface?	No	Site investigation from a nearby site on Dartmouth Park Road (65m west of the Site) was undertaken which struck groundwater at a depth of 2.7 to 3.2m bgl. As the proposed basement level is 2.1m bgl and the proposed extension will deepen the basement by 0.2m the basement development will not extend beneath the water table surface.	Cole Easdon Consultants (2007)
2. Is the site within 100m of a watercourse, well (used / disused) or potential spring line?	Potentially	There are no mapped surface watercourses within 100 m of the Site. However, the lost River Fleet is potentially located within 100m of the Site.	Figure 3.2 EA (2021) BGS (2021c)

4.1.1 Groundwater			
3. Will the proposed basement development result in a change in the proportion of hard surfaced / paved areas?	No	The proposed basement development will not increase impermeable areas as the area for the proposed lightwell is currently hardstanding.	Site Plans
4. As part of site drainage, will more surface water (e.g. rainfall and run-off) than at present be discharged to the ground (e.g. via soakaways and/or SUDS)?	No	The proposed basement development will not increase/decrease impermeable areas as the area for the proposed lightwell is currently hardstanding.	Site Plans
5. Is the lowest point of the proposed excavation (allowing for any drainage and foundation space under the basement floor) close to, or lower than, the mean water level in any local pond or spring line?	No	There are no ponds or surface watercourses within 500 m of the Site.	Site Plans Section 3.2 EA (2021)

1. As part of the proposed site drainage, will surface water flows (e.g. volume of rainfall and	No	The proposed basement development will not increase impermeable areas as the area for the proposed lightwell is	Site Plans
peak run-off) be materially changed from the existing route?		currently hardstanding.	
2. Will the proposed basement development result in a change in the proportion of hard surfaced / paved external areas?	No	The proposed basement development will not increase impermeable areas as the area for the proposed lightwell is currently hardstanding.	Site Plans
3. Will the proposed basement result in changes to the profile of the inflows (instantaneous and long-term) of surface water being received by adjacent properties or downstream watercourses?	No	As there is no change in impermeable areas at the Site it is assumed that the Site will continue to drain as existing.	Site Plans
4. Will the proposed basement result in changes to the quality of surface water being received by adjacent properties or downstream watercourses?	No	The proposed basement will not result in changes to the quality of surface water being received off Site. The existing development is residential while the proposed development will be residential.	Site Plans EA (2021)

4.1.2 Surface Water and Flooding			
5. Is the site in an area identified to have surface water flood risk according to either the Local Flood Risk Management Strategy or the Strategic Flood Risk Assessment or is it at risk from flooding, for example because the proposed basement is below the static water level of nearby surface water feature.	Yes	The Site is identified as being at risk of surface water flooding in the Strategic Flood Risk Assessment and by the EA. Pluvial flood risk across the Site is Low to High according to EA mapping.	SFRA (URS, 2014) Section 3.3 Figure 3.3

4.2 Scoping

Where a potential impact has been identified at the screening stage above, the potential further need for assessment is considered and scoped. The scoping stage should aim to build on the information provided in the screening stage. During this phase, a desk study should be undertaken to determine the preliminary impacts of the proposed basement development. This initial assessment should be used to identify any site investigation works required.

4.2.1 Groundwater		
Impact Question	Answer	Potential Impact & Assessment
2. Is the site within 100m of a watercourse, well (used / disused) or potential spring line?	Potentially	There are no mapped surface watercourses within 100 m of the Site. However, the lost River Fleet is potentially located within 100m of the Site.

4.2.2 Surface Water and Flooding		
Impact Question	Answer	Potential Impact & Assessment

5. Is the site in an area identified to have Pluvial flood risk across the Site is Low to High according to EA mapping. Yes surface water flood risk according to either However, as the proposed development does not involve an increase in the Local Flood Risk Management Strategy or impermeable areas or building footprint there will be no increase in surface the Strategic Flood Risk Assessment or is it at water runoff. risk from flooding, for example because the The threshold to the exterior basement access should be set at a higher proposed basement is below the static water elevation than the predicted surface water flood elevation to prevent ingress into level of nearby surface water feature. the basement area. The proposed basement entrance is located to the south of the existing building and is therefore not located within an area at risk of surface water flooding during the 100 year event.

5. Conclusions

5.1 Site Setting - Key Constraints

- Development proposals comprise the extension of the existing residential flat into the currently unused basement as well as the addition of a lightwell and the lowering of the existing floor by 0.2m to 2.3 mbgl to incorporate a new cavity drain membrane system which will connect to the existing sewer.
- The Site is underlain by London Clay bedrock, without any mapped superficial deposits.
- Nearby Site investigation was undertaken (65m west of the Site) which struck groundwater at a depth of 2.7 to 3.2m bgl. This was logged as silty/sandy clay within the clay and considered likely to be the result of thin, isolated permeable lenses within the London Clay bedrock.
- The London Clay is classed as an Unproductive Strata.
- The risk of fluvial flooding at the Site is Very Low.
- The risk of pluvial flooding at the Site is Low to High.
- The Lost River Fleet has been identified within close proximity to the Site with its likely located west of the Site.

5.2 Basement Impact Assessment - Screening & Scoping Outcome

No further assessment is considered to be required.

5.3 Recommendations

The following actions are recommended:

- It is recommended that flood resistance and resilience measures are implemented
 as part of the overall basement and wider development design. This includes
 measures to prevent water ingress and to reduce flood damage should flooding
 occur. The proposed development includes an internal staircase to reduce the risk
 of flooding.
- The threshold to the exterior basement access should be set at a higher elevation than the predicted surface water flood elevation to prevent ingress into the basement area.

6. References

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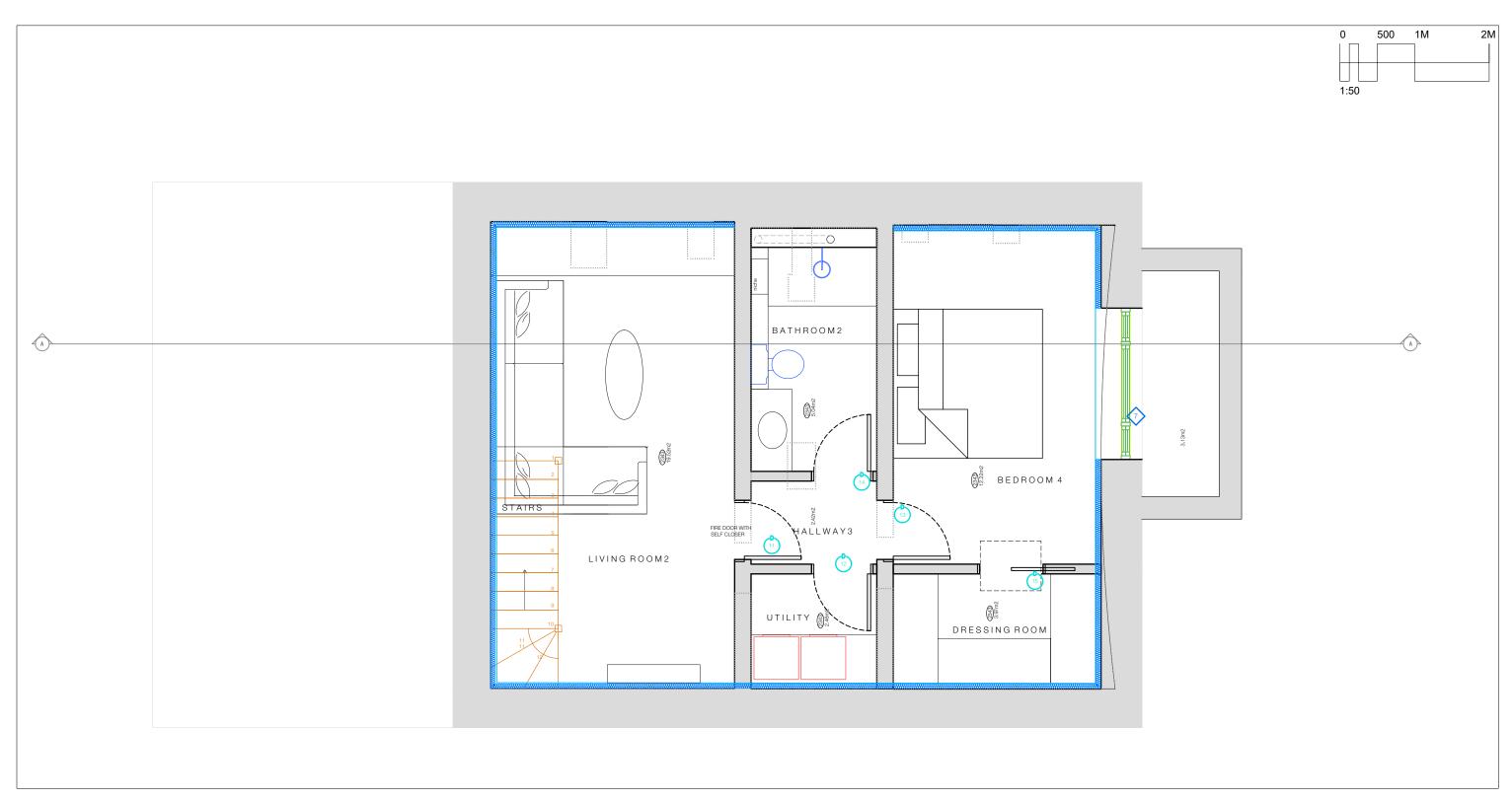
URS (2014). London Borough of Camden Strategic Flood Risk Assessment. Accessed from: https://www.camden.gov.uk/evidence-and-supporting-documents on 28/04/2021

Appendices



Appendix A

Site plans



OPTION D SPRINKLER REQUIRED FIRE ENGINEER REQUIRED

FELIXDB

12 Chichester Road London NW6 5QN

t. 07966264656

felix@felixdb.co.uk

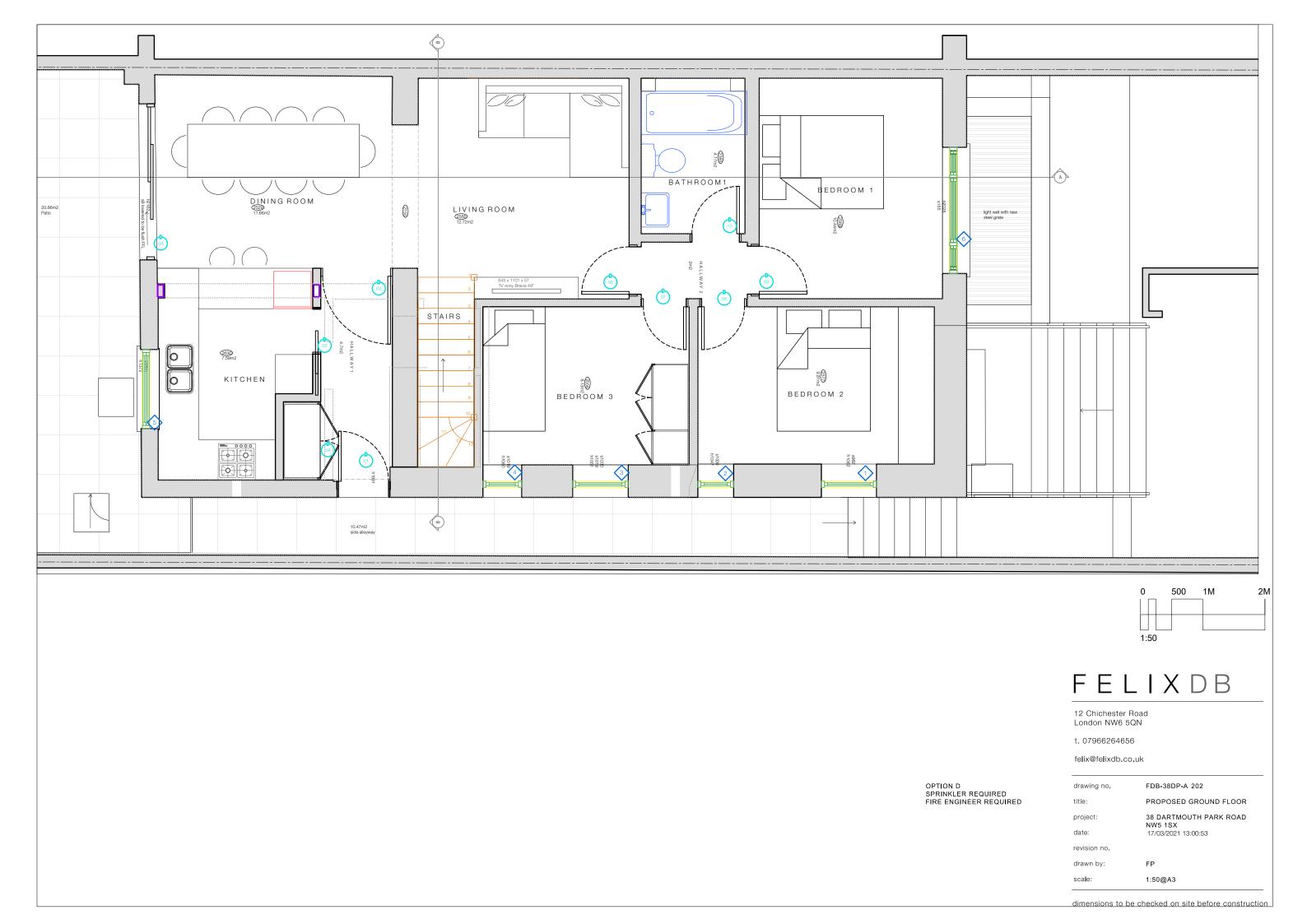
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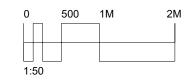
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t. 07966264656

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FDB-38DP-A 304 drawing no.

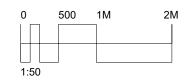
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38 DARTMOUTH PARK ROAD NW5 1SX 17/03/2021 13:00:54 project:

date: revision no.

FP drawn by: 1:50@A3 scale:





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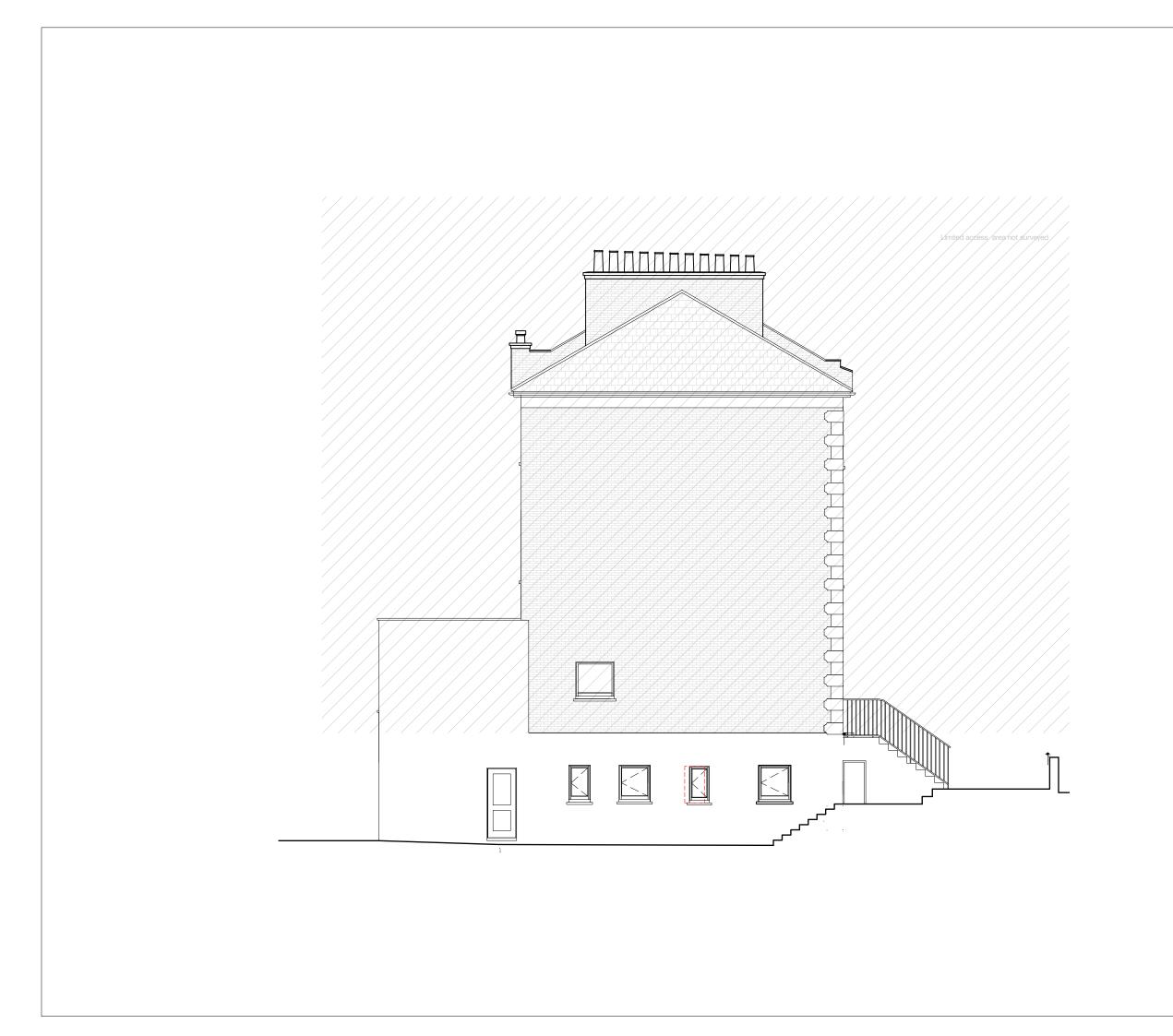
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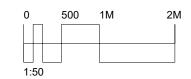
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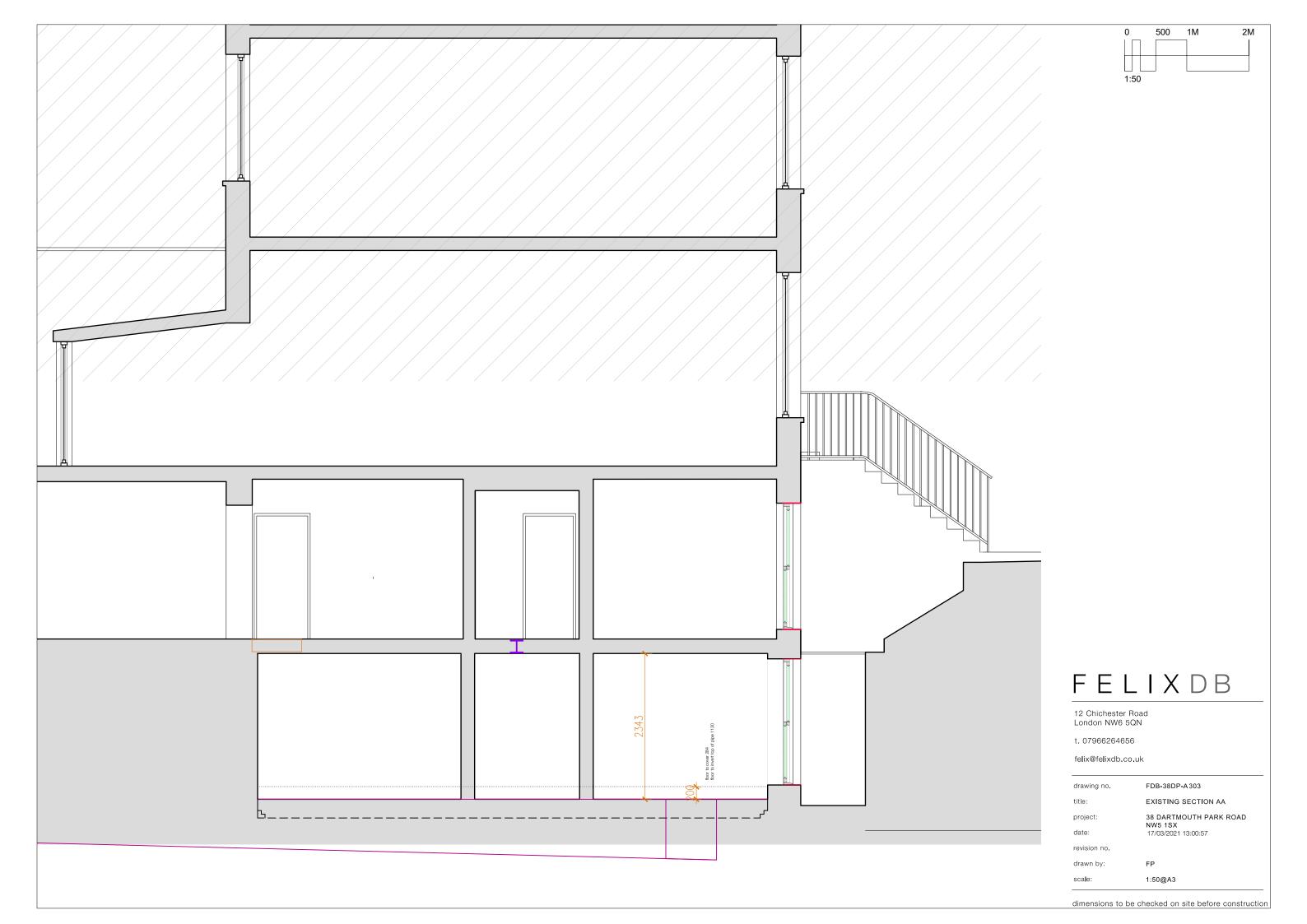
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recessed floor light	
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heat detector	
thermostat	L_J THERMO
double downlight	$\boxtimes\boxtimes$
recessed wall light low level	

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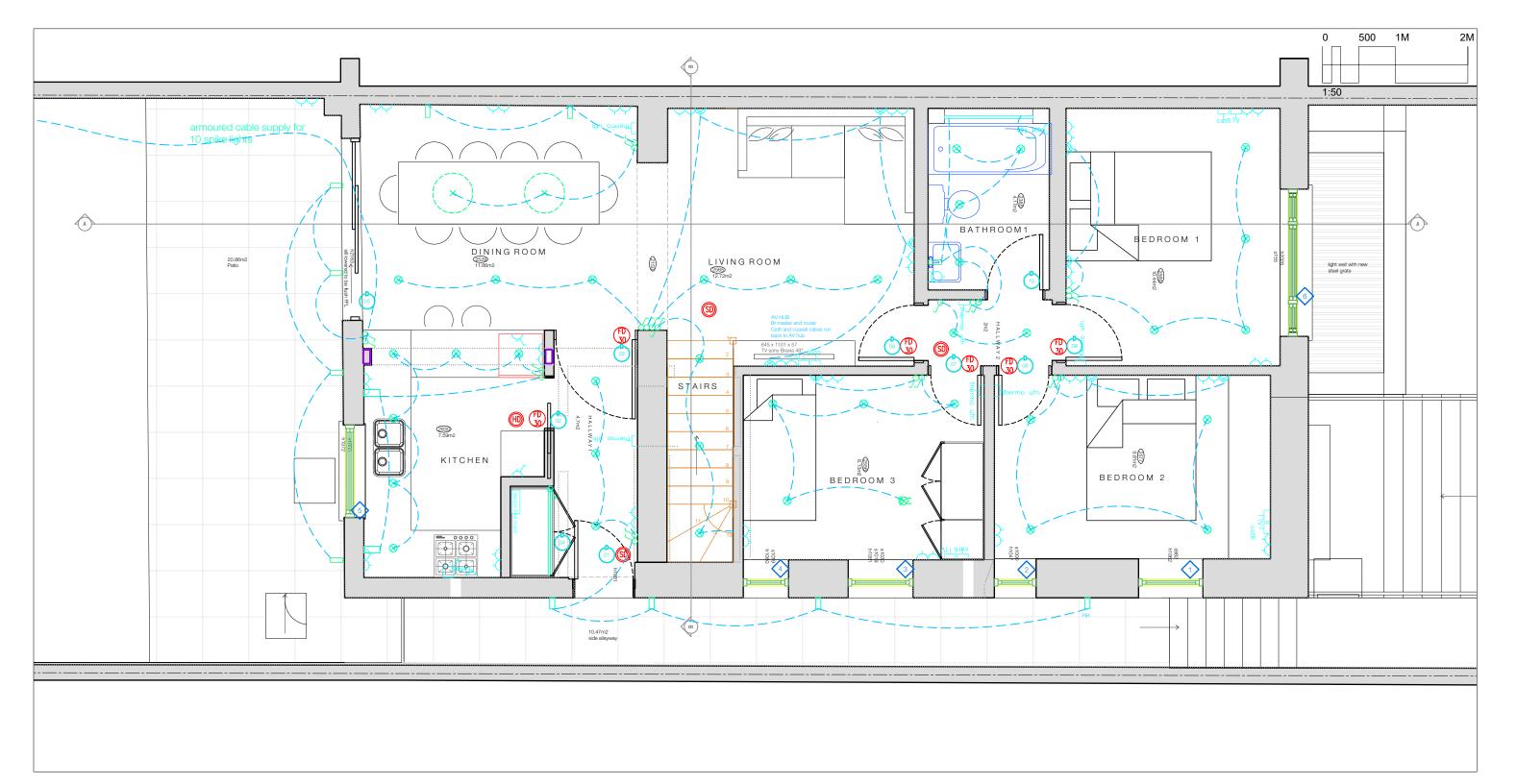
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fused spur	
shaver socket	
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speaker point	speaker

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security pir	LJ Ipir
keypad	LJ lkey pad
smoke detector	(SD)
heat detector	
thermostat	L_J THERMO
double downlight	
recessed wall light low level	

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drawing no. FDB-38DP-A 502

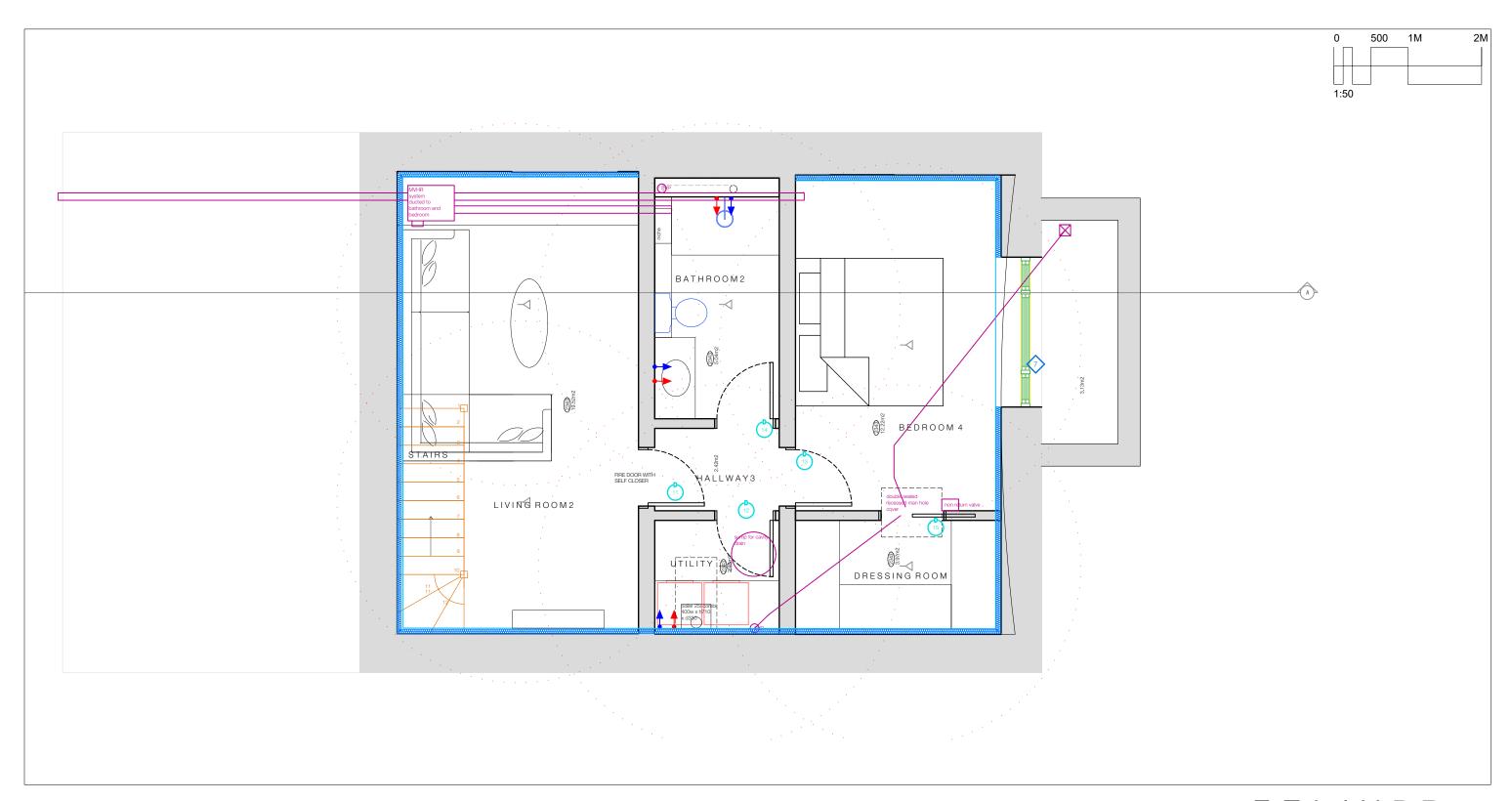
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project: 38 DARTMOUTH PARK ROAD

NW5 1SX date: 17/03/2021 13:01:00

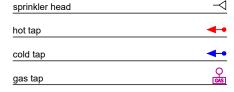
revision no.

drawn by: FP

scale: 1:50@A3



key



FELIXDB

12 Chichester Road London NW6 5QN

t. 07966264656

felix@felixdb.co.uk

FDB-38DP-A 503 drawing no.

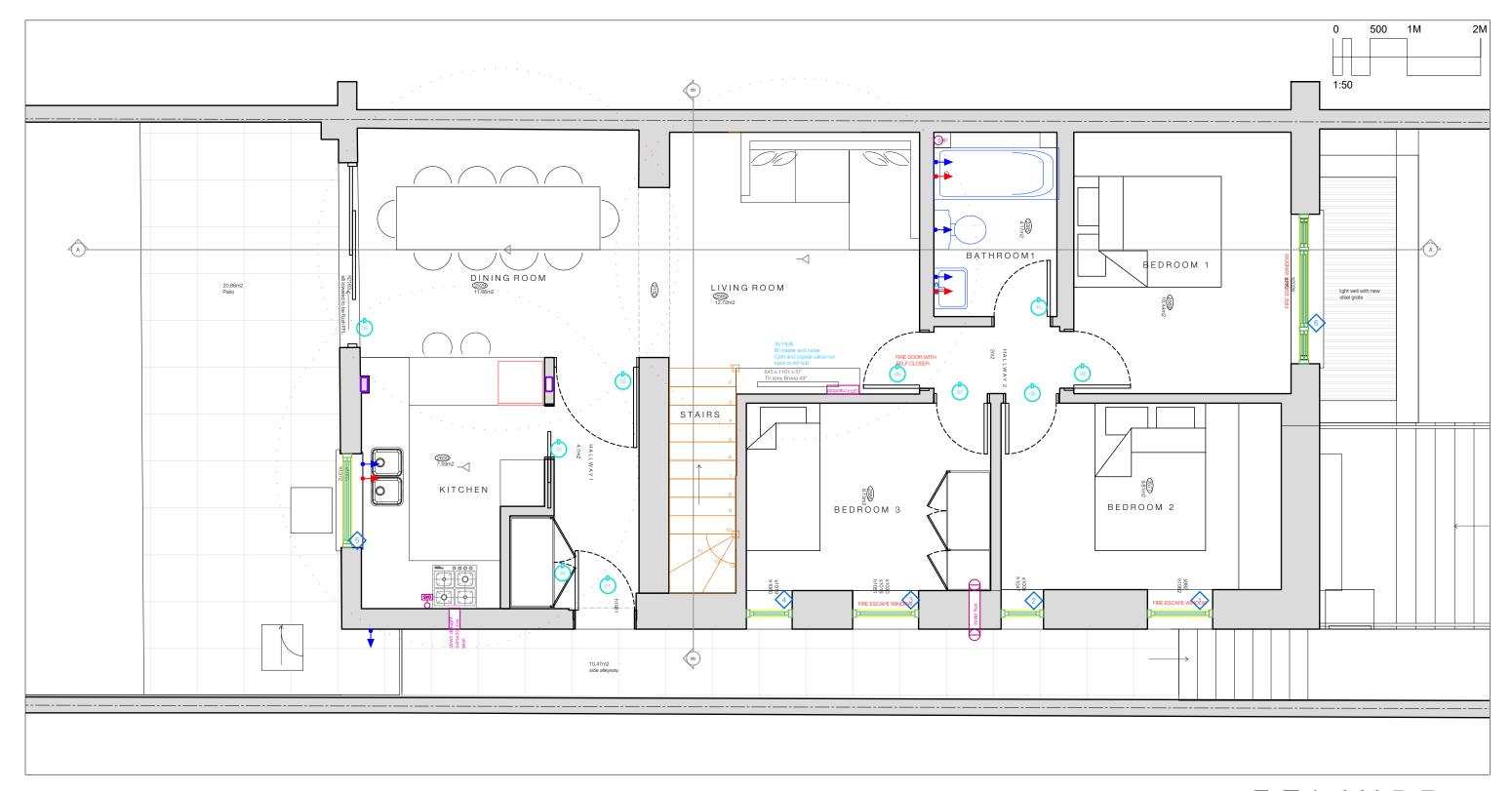
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FLOOR 38 DARTMOUTH PARK ROAD NW5 1SX 17/03/2021 13:01:02 project:

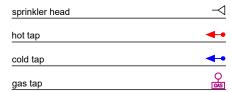
date: revision no.

FP drawn by:

scale: 1:50@A3



key



FELIXDB

12 Chichester Road London NW6 5QN

t. 07966264656

felix@felixdb.co.uk

FDB-38DP-A 504 drawing no.

PROPOSED PLUMBING GROUND title:

FLOOR 38 DARTMOUTH PARK ROAD NW5 1SX 17/03/2021 13:01:03 project:

1:50@A3

date:

revision no.

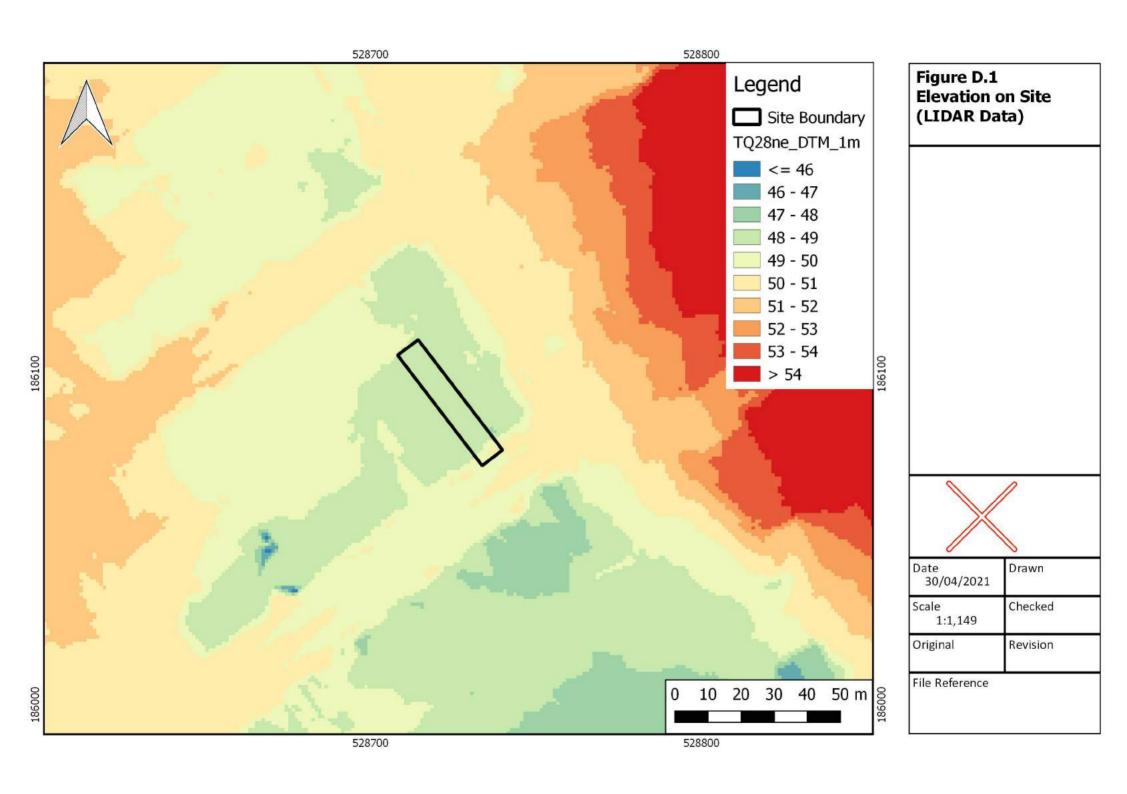
scale:

FP drawn by:

dimensions to be checked on site before construction

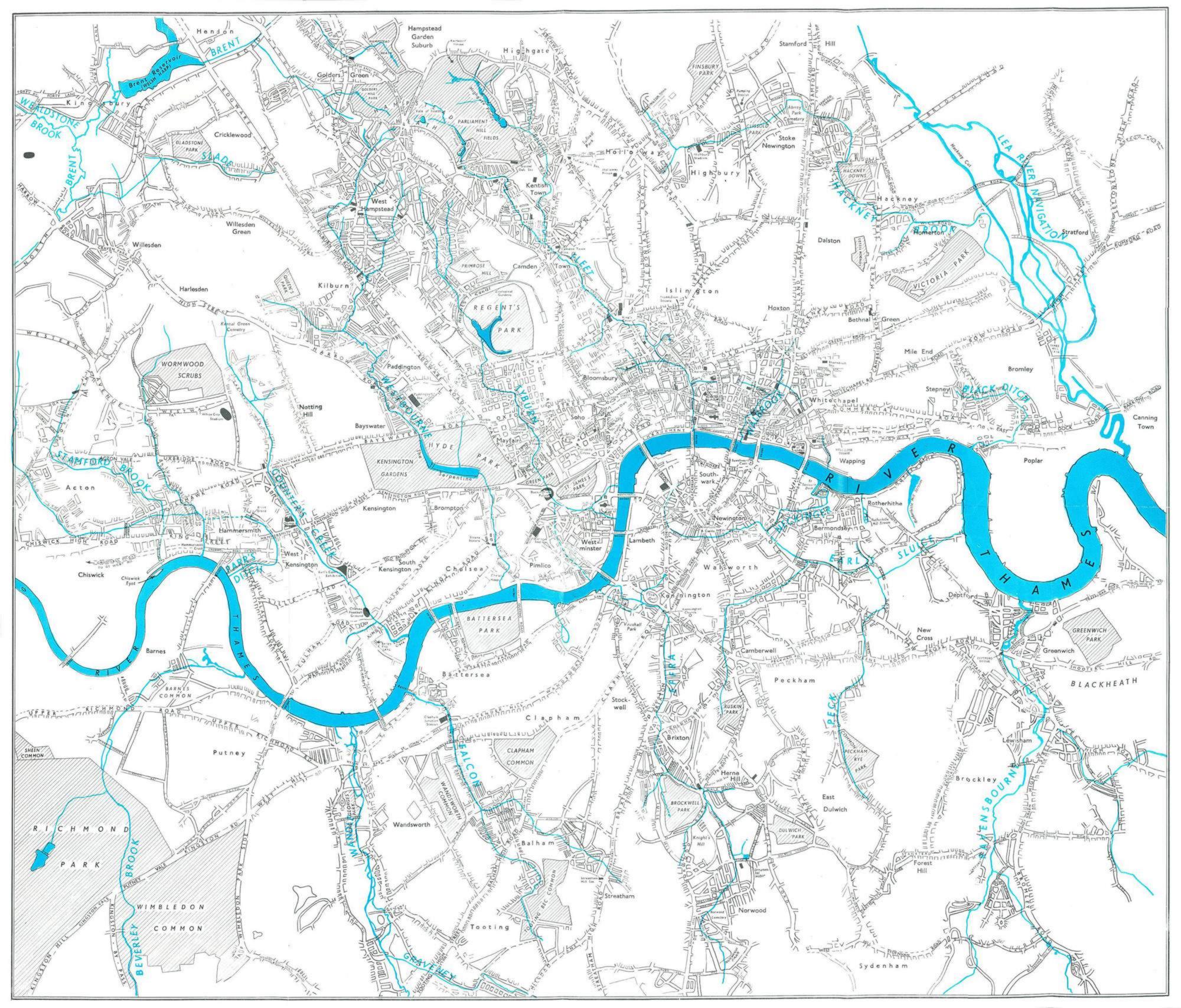
Appendix B

Environment Agency LiDAR Map



Appendix C

London's Lost Rivers Map



Appendix D

Cole Easdon Consultants Site Investigation (2007)

Ref: G020704 K. F. Geotechnical Borehole Α Date: Scale: Sheet: 25/1/07 85 Alexandra Road 1:50 Farnborough Tel: (01252) 518821 Hants Fax : (01252) 370394 Client: ELLIOTT WOOD PARTNERSHIP **GU14 6BN** Email: kfgroop@fbro.demon.co.uk Location: Equipment & 20 DAR'I MOUTH PARK ROAD, LONDON NW6 Flight Auger Method: Tests Samples Reduced Field Notes Depth Padeuri Description of Strata [thickness] Level Value Type Depth Туро York slabs (0.06)
Concrete (0.10)
MADE GROUND: Firm brown gravelly sandy
silty clay (0.14)
Stiff brown/orange, grey veined silty
CLAY with partings of silt and fine
sand (1.00) -0.05 -0.16 -0.30 0.06 0.16 88 1.00 ٧ D -1.30 1.30 As above with claystone nodules (3.70) 100 1.50 D ٧ 2.00 120 ٧ D Roots of live appearance to 2.1m 2.50 ٧ 136 Ð Water strike at 2.7m 3.00 140+ D 4.00 Ü 140+ 5.00 5.00 5.00 140+ Base of Borehole Where 0.3m penetration has not been achieved, the number of blows Remarks for the quoted penetration is given. (Not the N value) All depths and reduced levels are in metres. Borehole open on completion Water standing at 3.4m on completion Water level observations during boring are given on the fast sheet of the log. Undisturbed Sample Standard Penetration Test

Disturbed Sample

Bulk Sample

W Water Sample

Vano Test

MP Mackintosh Probe

LABORATORY TEST RESULTS

Moisture Content & Plasticity Tests.

Location: 20 Dartmouth Park Road, London.

Ref: G/020704/A

Sheet: 1 of 2

Client:

Date: February 2007.

BH No:	Description	Depth (m)	M(***)	P[.	[].[. (%)	P[(%)	% 425	(6.6)
A.	Brown sandy silty CLAY.	1.00	22	22	55	33		
	Brown sandy silty CLAY with occasional gravel.	1.50	21	18	43	25	95	24
	Brown sandy silty CLAY with occasional gravel.	2.00	23					
	Brown sandy silty CLAY with occasional gravel.	2.50	23	19	49	30)	97	29
***	Brown silty CLAY,	3.00	33					
	Brown silty CLAY.	4.00	36			Andrew Programme Control of the Cont		
, (A	Brown silty CLAY.	5.00	37					
	· · · · · · · · · · · · · · · · · · ·							· 3···3··-3··
	· Ph. — All Marie The Control of the							ord Minima tasks h <u>eadership</u>

MC - Moisture Content

PL - Plastic Limit

LL - Liquid Limit

1'p - Modified Plasticity Index Pl x (%-425µm)/100%

Pt - Plasticity Index

NP - Non Plastic

K. F. GEOTECHNICAL

Ref: G020704 В Borehole K. F. Geotechnical Date: Scale: Sheet: 25/1/07 1:50 85 Alexandra Road : (01252) 518821 Farnborough Fax : (01252) 370394 Hants Client: ELLIOTT WOOD PARTNERSHIP **GU14 6BN** Email: kfgroup@fbro.demon.co.uk Location: Equipment & 20 DARIMOUTH PARK ROAD, LONDON NWG Flight Auger Method: Tests Samples Reduced Field Notes Legend Depth Description of Strata (thickness) Level Value Type Depth Type -0.10 XXXX Concrete (0.10)
MADE GROUND: Firm brown gravelly sandy
silty clay with brick fragments (0.10) /
Stiff brown/orange, grey veined silty
CLAY with partings of silt and fine
sand (1.50) 0.10 126 1.00 D 1.50 112 ٧ 1.70 -1.70 firm as above (0.60) 2.00 70 ٧ Roots of live appearance to 2.2m -2.30 2.30 82 2.50 Stif becoming very stiff as above (2.70 L. D 3.00 130 ٧ D Water strike at 3.2m 4.00 140+ ٧ -5.00 5.00 5.00 ٧ 140+ Base of Börehole Where 0.3m penetration has not been achieved, the number of blows Remarks for the quoted penetration is given. (Not the N value)

All depths and reduced levels are in metres.

Undisturbed Sample

D Disturbed Sample

Bulk Sample

W Water Sample

Water level observations during boring are given on the last sheet of the log.

Vane Test

MP Mackintosh Probe

Standard Penetration Test

Borehole open on completion Water standing at 3.4m on completion

LABORATORY TEST RESULTS

Moisture Content & Plasticity Tests.

Location: 20 Dartmouth Park Road, London.

Ref: G/020704/A

Sheet: 2 of 2

Client:

Date: February 2007.

BH No:	Description	Depth (m)	MC (%)	1 ³ L	1.1. (%)	(%)	% < 425	1 'p (%)
8.	Brown, grey veined sandy silty CLAY with occasional fine gravel.	1.00	24	22	57	35		
	Brown, grey veined sandy silty CLAY with occasional fine gravel.	1.50	24	21	52	31	· · · · · · · · · · · · · · · · · · ·	
	Brown, grey veined sandy silty CLAY with occasional fine gravel.	2.00	24					
	Brown sandy silty CLAY with occasional fine gravel.	2.50	23	21	50	29		
	Brown, grey veined sandy silty CLAY.	3.00	24					
	Brown, grey veined sandy silty CLAY.	4.00	37					
aditions dreff har a considerate	Brown, grey veined silty CLAY with crystalline deposits.	5.00	37					

MC - Moisture Content

Pl. - Plastic Limit

LL - Liquid Limit

l'p - Modified Plasticity Index Pl x (% 425μm)/100%

Pl - Plasticity Index

NP - Non Plastic

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Tel: 01743 298 100

Email: info@geosmartinfo.co.uk

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- promotes the best practice 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.
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- 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

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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

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If you want to make a complaint, we will:

- Acknowledge it within 5 working days of receipt.
- Normally deal with it fully and provide a final response, in writing, within 20 working days of receipt.
- Keep you informed by letter, telephone or e-mail, as you prefer, if we need more time.

- Provide a final response, in writing, at the latest within 40 working days of receipt.
- Liaise, at your request, with anyone acting formally on your behalf.

If you are not satisfied with our final response, or if we exceed the response timescales, you may refer the complaint to The Property Ombudsman scheme (TPOs): Tel: 01722 333306, E-mail: admin@tpos.co.uk.

We will co-operate fully with the Ombudsman during an investigation and comply with his final decision.

Complaints should be sent to:

Alan White

Operations Manager

GeoSmart Information Limited

Suite 9-11, 1st Floor

Old Bank Buildings, Bellstone

Shrewsbury

SY1 1HU

Tel: 01743 298 100

alanwhite@geosmartinfo.co.uk