FLOOD RISK ASSESSMENT

69 Kentish Town Road
London
NW1 8NY

Prepared for

James Allard & Co

Prepared By: BEN KENT

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Telephone: 01727 853553

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Reference: 13145NA
Status: **Preliminary**

INDEX

1.0 INTRODUCTION

Gyoury Self Partnership has been commissioned by James Allard & Co to undertake a Flood Risk Assessment (FRA) and review the constraints of their site at 69 Kentish Town Road, London, NW1 8NY.

This report summarises the items included in the assessment carried out by Gyoury Self Partnership. This report has been produced in accordance with the Planning Policy Statement (PPS) 25

Reference documents:-

- The Environment Agency (EA) Flood Maps
- Thames Water Drainage Records
- Thames Water records on sewer flooding
- 'Floods in Camden – Reports of the Flood Scrutiny Panel', LB of Camden, June 2003
- The North London Strategic Flood Risk Assessment, August 2008
- Planning Policy Statement (PPS) 25
- Planning Practice Guidance
- Camden Geological, Hydrogeological and Hydrological Study, Guidance for subterranean development Issue 01 November 2010
- 'Improving the flood performance of new buildings : flood resilient construction' May 2007
- 'Surface Water Management Plan' for the London Borough of Camden June 2011.

2.0 SCOPE OF WORK

The scope of work considered by this assessment relates to the guidance outlined in the documents referenced above, and sets out to obtain the following:

- Hydrology activity on and around the site
- A review of the Architect's plans and existing site conditions
- An assessment of the impact of severe flood events including climate change
- Safe, practical development that does not increase flood risk elsewhere using, and following guidance set out by the Environment Agency.

3.0 SITE DESCRIPTION

The site is situated to the south of Kentish Town approximately 20m north of the junction with Camden Street and 100m north of the London Overground railway line. The existing building shares party walls with a public house to the south and barbershop to the north. An access road into Bradfield Court bounds the site to the west. The properties either side of the proposed development have existing basements. The surrounding area is predominantly residential with some retail on the western side of Kentish Town Road.

The site is accessed from Kentish Town Road. The site is currently occupied by a ground floor newsagents, a basement and a single flat encompassing the first and second floor. There is a rear garden with a brickwork boundary wall to the Bradfield Court access road. There is no rear access from the site, to the Bradfield Court access road.

Ground levels in the rear garden fall from the western boundary towards the building by approximately 400mm. There is an existing step up from Kentish Town Road into the building with the finished floor level of the existing building approximately 200mm higher than the footway.

4.0 PROPOSED DEVELOPMENT

It is proposed that the existing building will be refurbished and an extension provided to the rear of the building, including an extension to the basement.

The proposed use of the site is classified as 'Highly Vulnerable' within PPS (25), due to the basement dwelling.

5.0 HYDROLOGICAL SETTING

The nearest surface water feature is the Regent's Canal to the south.

The Environment Agency's Flood Map indicates that the site is located within Flood Zone 1 (less than 1 in 1000 annual probability of fluvial flooding). The indicative flood map is presented in Appendix C.

6.0 FLOOD RISK AND MITIGATION

6.1 Fluvial / Tidal Flooding

The Environment Agency Flood Map indicates the site is located in Flood Zone 1, meaning the likelihood of flooding is classified as less than 1 in 1000 in any given year.

Based on the site and surrounding area being located within Flood Zone 1, safe access/egress is achievable.

Proposed Mitigation

No mitigation measures are required.

6.2 Flooding from Sewers

Sewer flooding can occur during periods of heavy rainfall when a sewer becomes blocked or is of inadequate capacity.

'Surface Water Management Plan' for the London Borough of Camden June 2011 indicates 190 properties were affected by sewer flooding in the past decade, in postcode area NW1 8.

Thames Water Sewer History records indicate incidences of sewer flooding have occurred in the area of the site.

Proposed Mitigation

All internal and external inspection chambers at basement level are to have double sealed covers to prevent water ingress into the building.

Non-return valves are to be fitted to foul inlets within the inspection chambers serving all basement and ground floor level WC's, wash hand basins, sinks, baths and showers, to prevent surcharge of waste water into the building. Non-return valves are not to be fitted to pipes serving surface water runoff, therefore allowing surface water to dissipate from the system.

6.3 Surface Water Flooding (overland flow)

Surface water flooding can occur during intense rainfall events, when water cannot or is unable to soak into the ground or enter the drainage systems.

'Floods in Camden – Reports of the Flood Scrutiny Panel', LB of Camden, June 2003 Figure 1 and Appendix 4 indicates that Kentish Town Road flooded in 1975. A summary of the flood event is included in the report 'Severe storm between 5.30pm and 8.00pm on 14 August 1975 – caused flooding in lower lying areas of Hampstead. Heaviest and most concentrated since records began for this part of Borough, over six inches of rain (15cm) fell – likely to be once every 100 years. The drainage capacity of household drains, road gullies and sewers was far exceeded and was unable to cope with the volume of water involved'.

The Environment Agency surface water flood map indicates adjacent to the scheme, Kentish Town Road is at Medium to Low risk of surface water flooding, and the Bradfield Court access road is at Low risk.

Detailed Environment Agency mapping of the area indicates surface water depth for the Medium risk scenario is below 300mm adjacent to the site.

The Environment Agency maps (Reservoirs and Surface Water – Appendix C) indicates that the site is outside of areas identified as being at risk from Reservoir Topping.

Proposed Mitigation

There is an existing 200mm step up from the footway of Kentish Town Road into the shop and communal residential area. This will provide a barrier to the majority of surface water flooding for the Medium risk scenario.

The entry door for the residential communal area from Kentish Town Road and the entrance door for Flat 2 are to be a flood protection door to PAS 1188-1:2014, model to be selected by the Architect.

Flood barriers to PAS 1188-1:2014 are to be fitted to the shop front and stored within the shop. In the event of surface water flooding being evident in Kentish Town Road shop workers are to fit the barriers in place.

The internal basement wall between the shop and Flat 2 is to either be treated with tanking polymer or tanked with an impermeable membrane, to ensure that should water enter the shop basement it will not affect any habitable area.

The rear garden masonry wall will provide a barrier to surface water flooding in the Bradfield Court access road.

6.4 Groundwater Flooding

This can occur in low-lying areas when groundwater levels rise above the surface levels, or within underground structures.

Groundwater flooding site is underlain by London Clay, a 'non productive strata', as defined by the Environment Agency

Proposed Mitigation

No mitigation measures are required.

7.0 SPECIFIC POLICY CONSIDERATIONS

7.1 Sequential Test

PPS25 states that the aim of the Sequential Test is to steer new development to areas with the lowest probability of flooding. The site is located within Flood Zone 1 and therefore meets the requirements of the Sequential Test.

7.2 The Exception Test

According to Table D3 in PPS25, 'Highly Vulnerable' developments are considered appropriate within Flood Zone 1 without the requirement to apply the Exception Test. Consequently, application of the Exception Test is not required for the proposed development.

8.0 SUMMARY AND CONCLUSIONS

The aim of the Flood Risk Assessment is to outline the potential for the site to be impacted by flooding, the potential impacts of the development on flooding, both on-site and in the vicinity, and the proposed measures which can be incorporated into the development to mitigate the identified risks. The report has been produced in accordance with the guidance detailed in PPS25.

The risk of flooding from fluvial, groundwater is considered to be low.

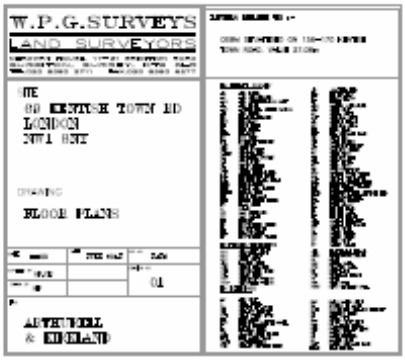
There is a risk of flooding from surface water. The 200mm step into the residential communal area and shop provide barrier to the majority of surface water flooding for the Medium risk scenario. To protect against extreme events a flood protection door is recommended to be provided to the access to the residential communal area from Kentish Town Road and the entrance door for Flat 2, and flood barriers are suggested to be fitted to the shop front. The internal basement wall between the shop and Flat 2 is to be treated to ensure that should water enter the shop basement it will not affect any habitable area. The rear garden masonry wall provides a barrier to flood water from the Bradfield Court access road.

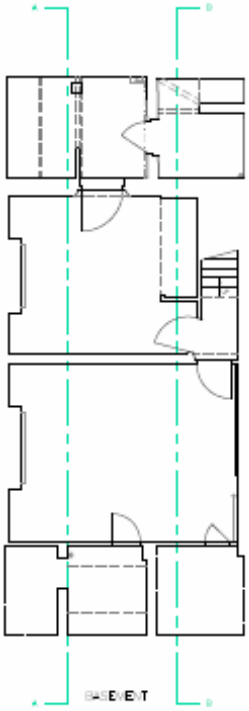
There is a risk of flood from sewers to the site. All inspection chambers at basement level are to have double sealed covers. Foul inlets within the inspection chambers serving all basement and ground floor level WC's, wash hand basins, sinks, baths and showers are to be fitted with non-return valves.

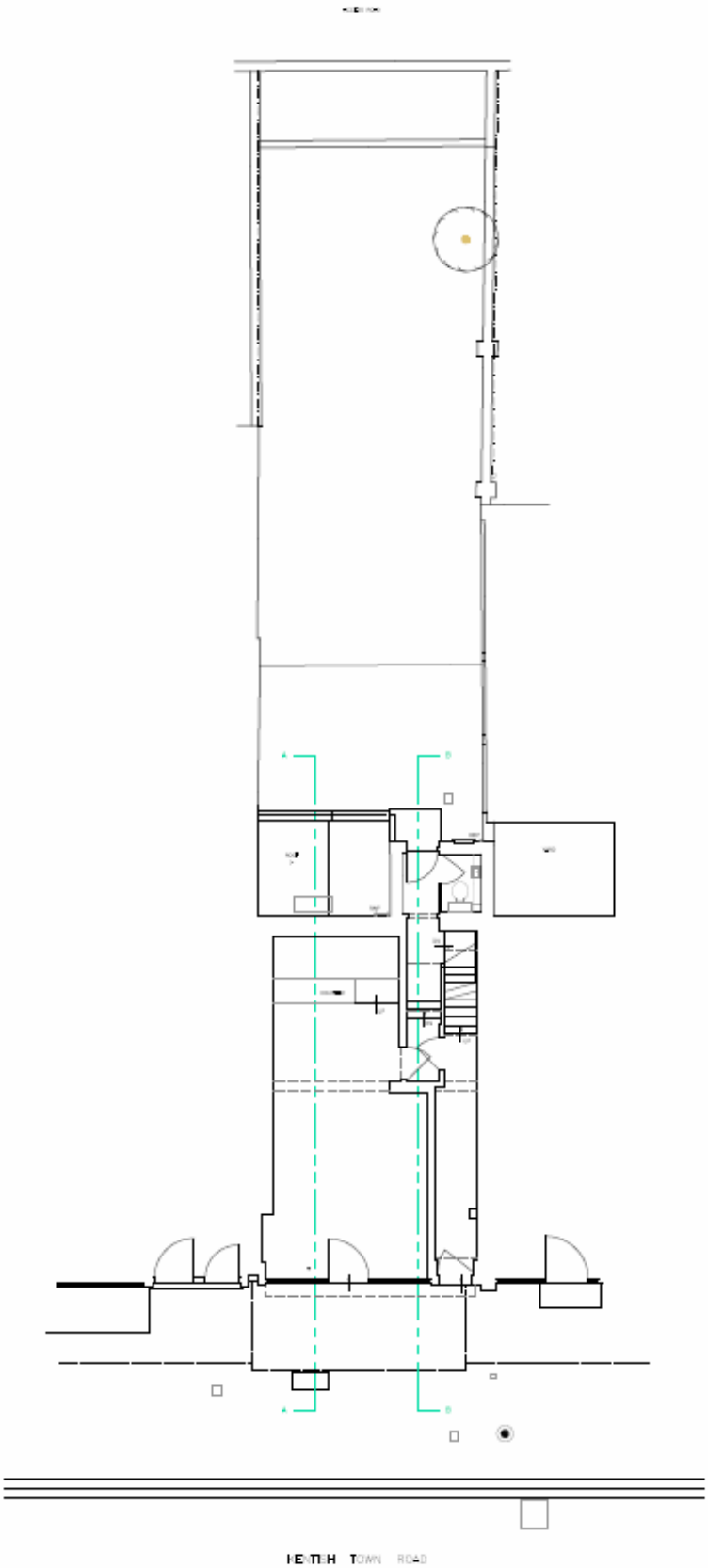
Sustainable drainage techniques are to be considered for the proposed surface water drainage to provide localised interception and treatment of surface water runoff and attenuation.

Overall it has been demonstrated that the risk of flooding identified can be mitigated and the development can be constructed without increasing flood risk elsewhere.

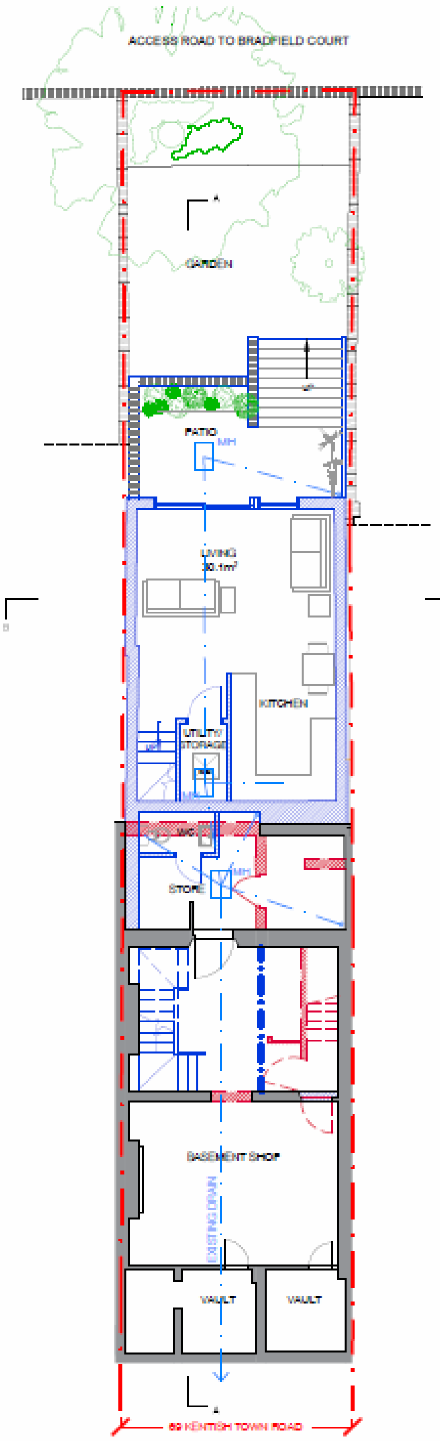
APPENDIX A Site survey and existing layout


W.P.G.SURVEYS
LAND SURVEYORS
69 KENTISH TOWN RD
LONDON
NW1 8NY
FLOOR PLANS
01
ABERNETHY
& HIGHAM


BASEMENT


KENTISH TOWN ROAD

APPENDIX B Proposed layout



SCALE BAR 1:100

0 1 2 3 4 5

Revisions;

A	18.04.16	Revised proposal for planning
B	26.04.16	Revised proposal for planning
C	01.8.16	Rear extension lowered, narrower first floor extension

EXISTING RETAINED

EXISTING REMOVED

NEW CONSTRUCTION

N

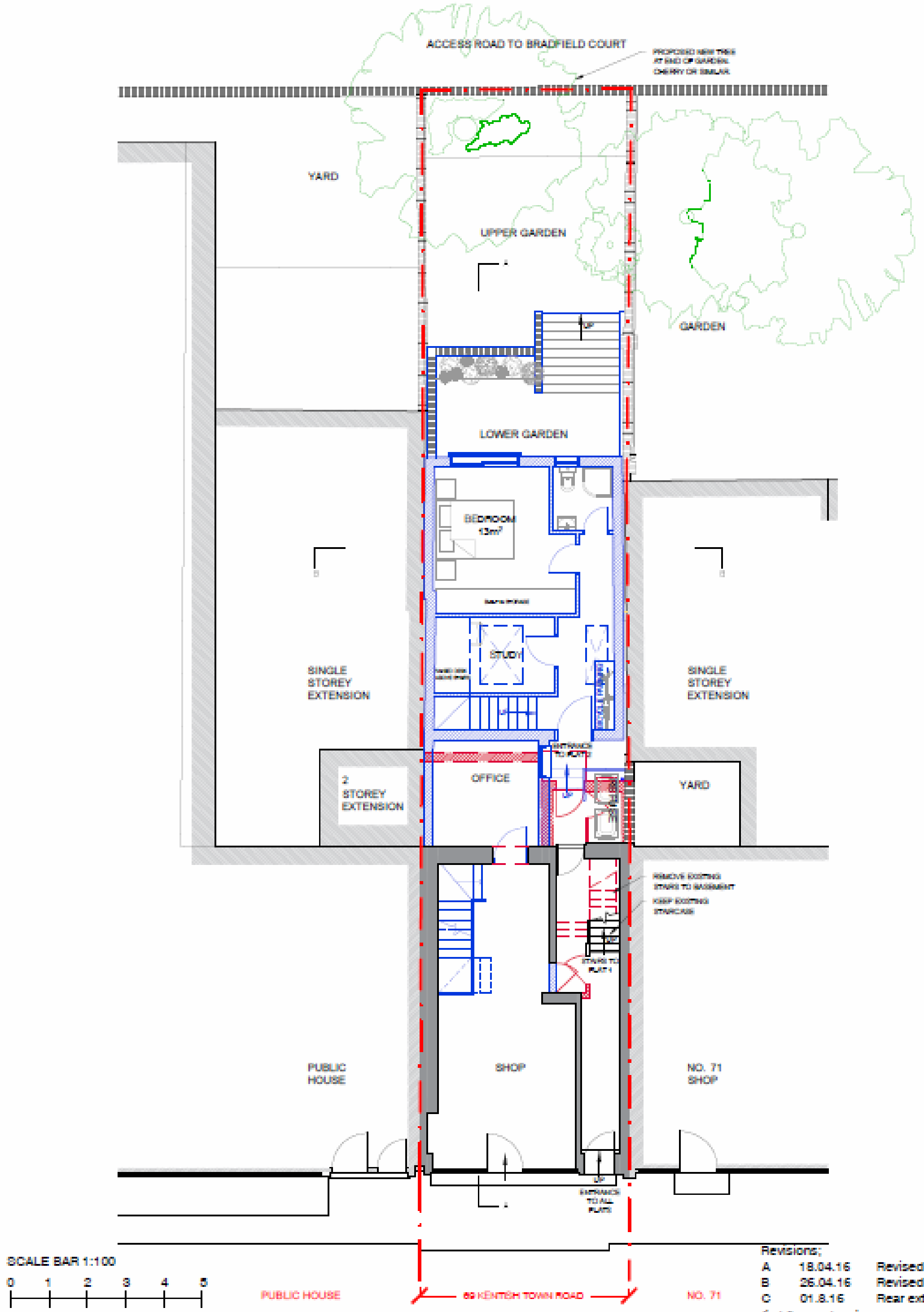
ARTHURELL+KIRKLAND LLP

PROPOSED LOWER GROUND FLOOR

69 KENTISH TOWN ROAD
LONDON
NW1 8NY

A3 @1:100 · RH · 24.03.16

1169 · 12 · C



Revisions;

A	18.04.16	Revised proposal for planning
B	26.04.16	Revised proposal for planning
C	01.8.16	Rear extension lowered, narrower first floor extension
D	09.08.16	Internal bicycle storage added

EXISTING RETAINED
EXISTING REMOVED
NEW CONSTRUCTION

N

ARTHURELL+KIRKLAND LLP
ARCHITECTS

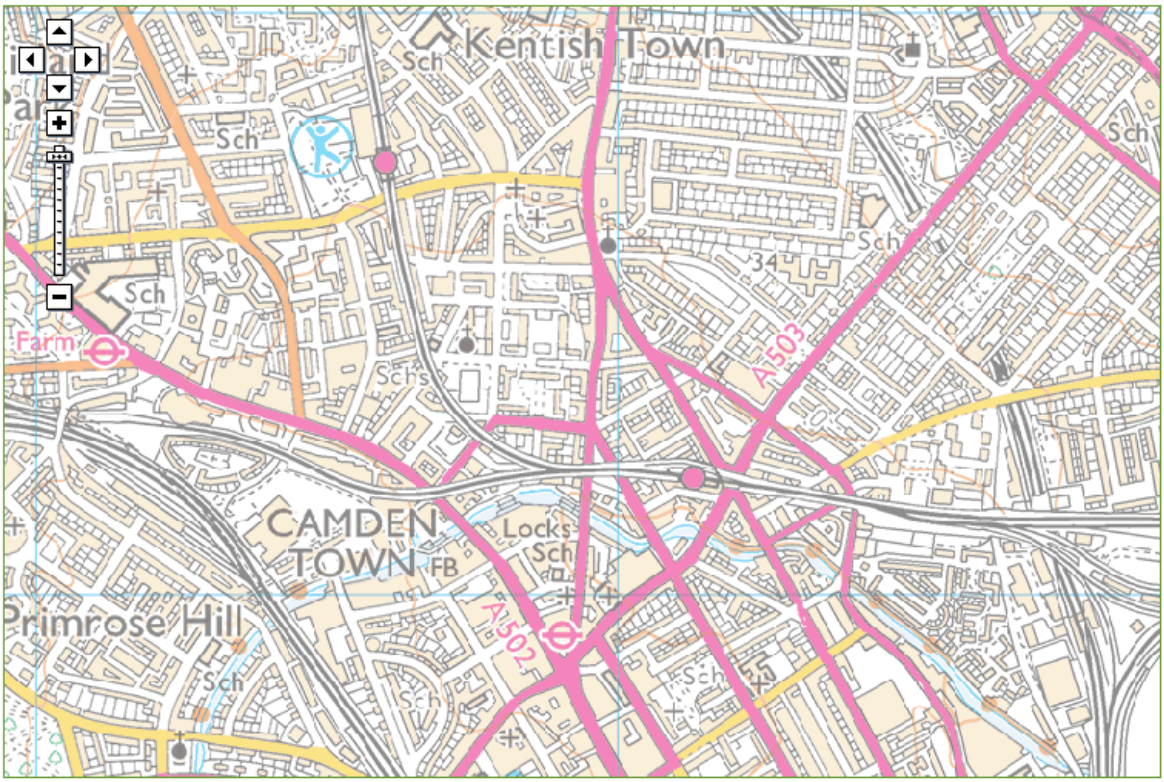
Drawing title
PROPOSED GROUND FLOOR

Project
69 KENTISH TOWN ROAD
LONDON
NW1 8NY

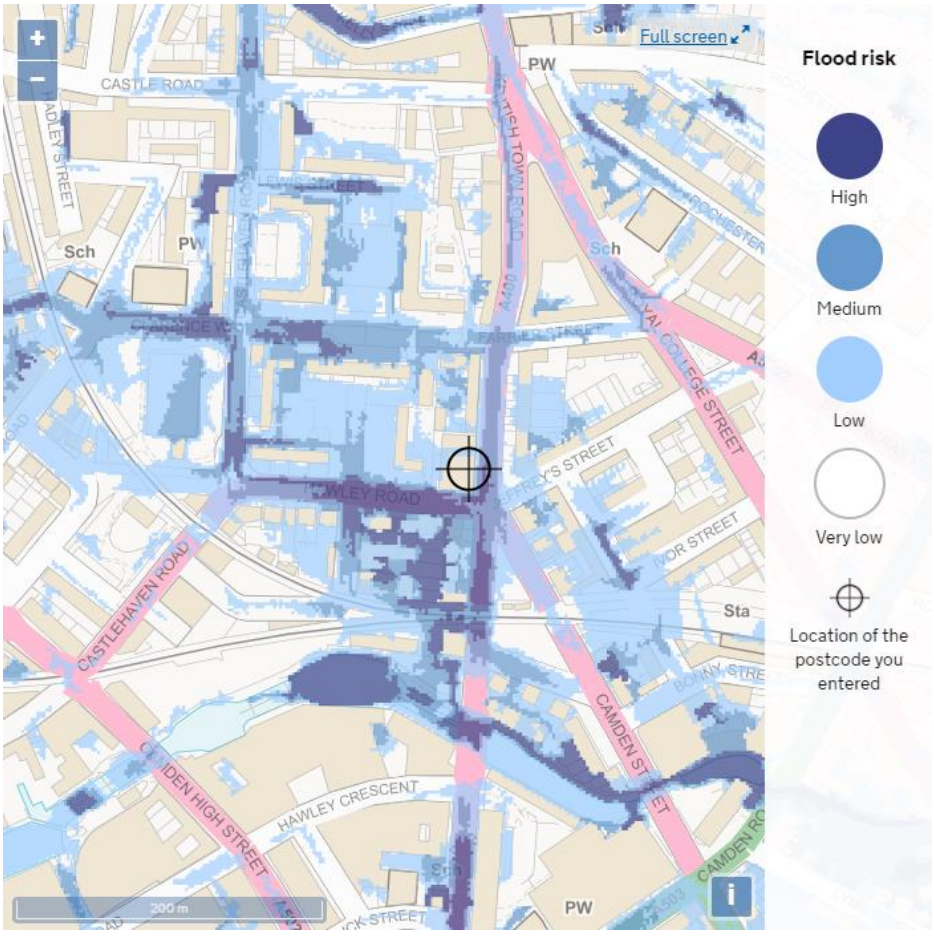
Scale	Drawn	Date
A3 @1:100	RH	24.03.16

Job no.	Drawing no.	Revision
1169	13	D

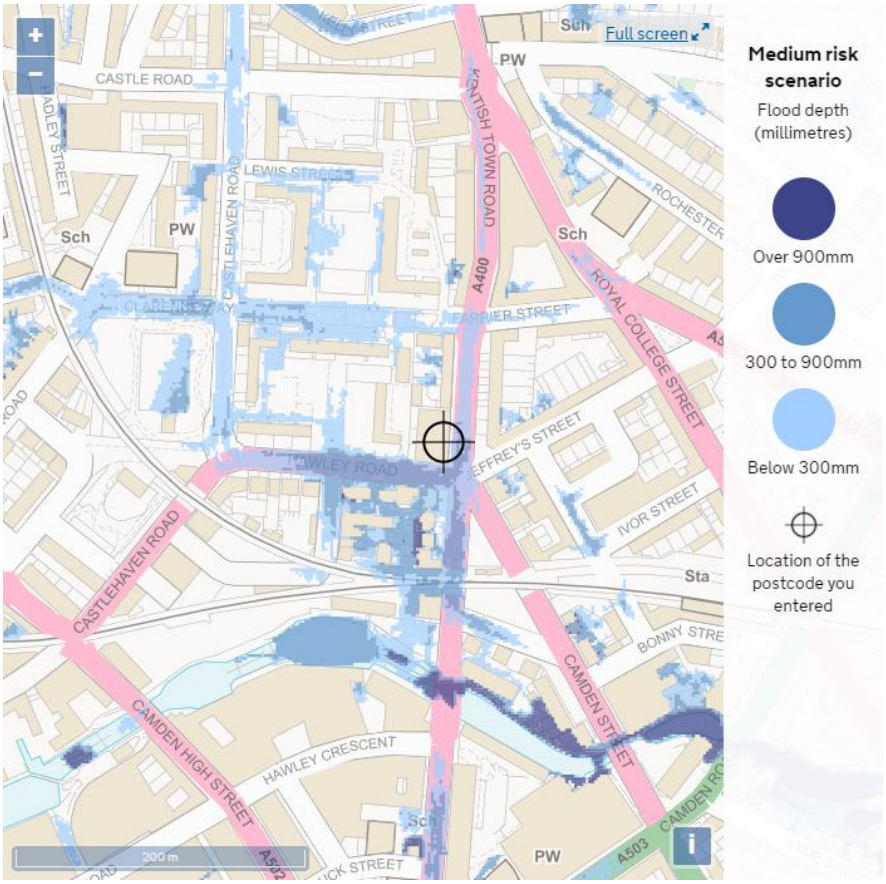
APPENDIX C Environment Agency Flood Maps



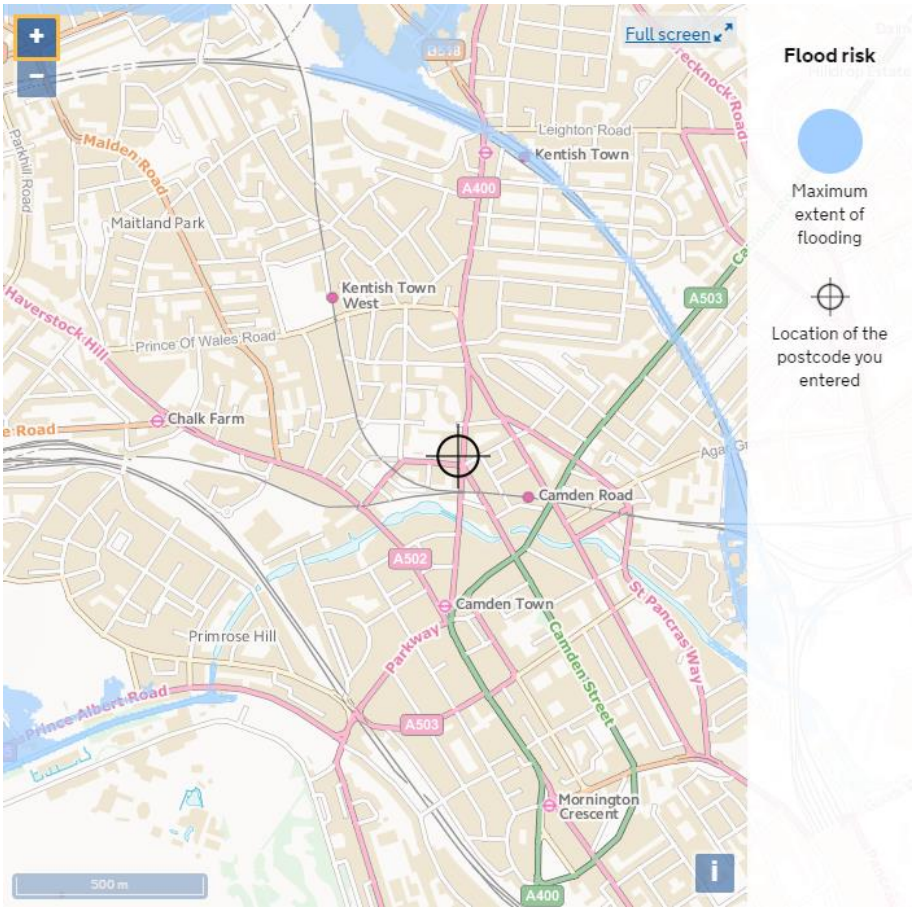
Environment Agency – Flood Zone Map



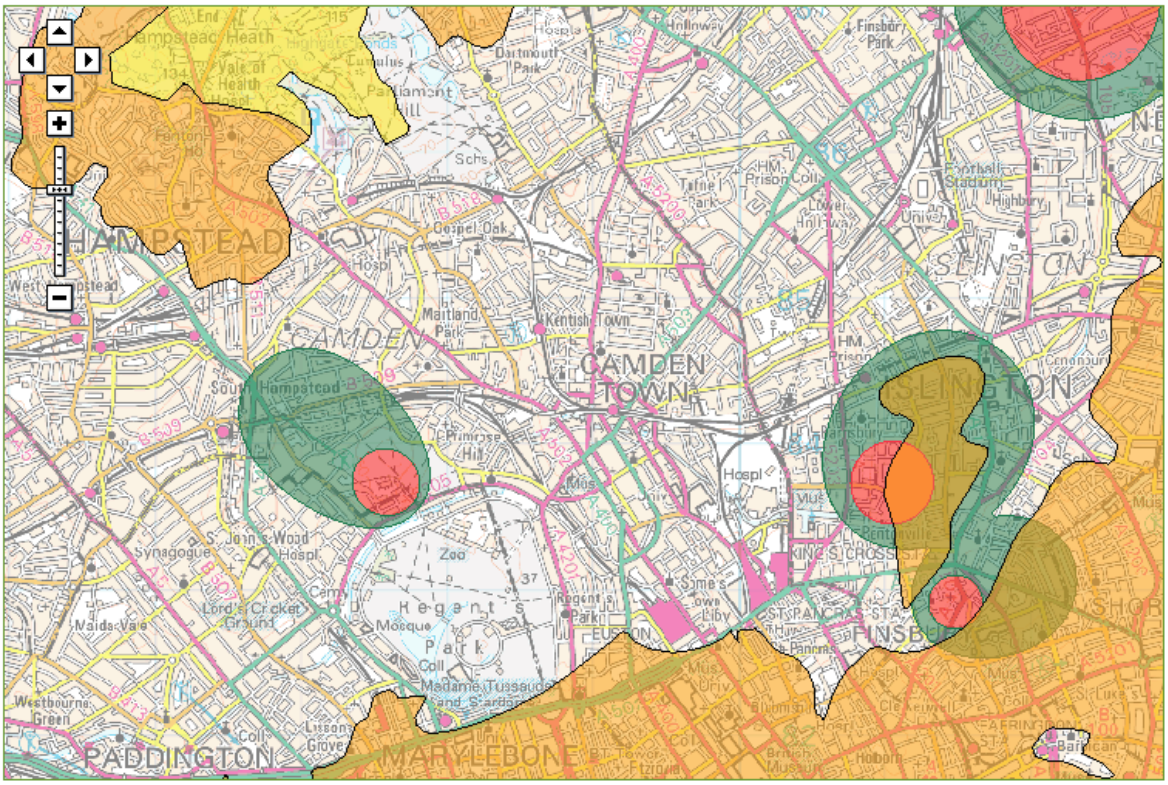
Environment Agency – Flooding from surface water



Environment Agency – Flooding from Surface Water Medium Risk Depth



Environment Agency – Flooding from reservoirs

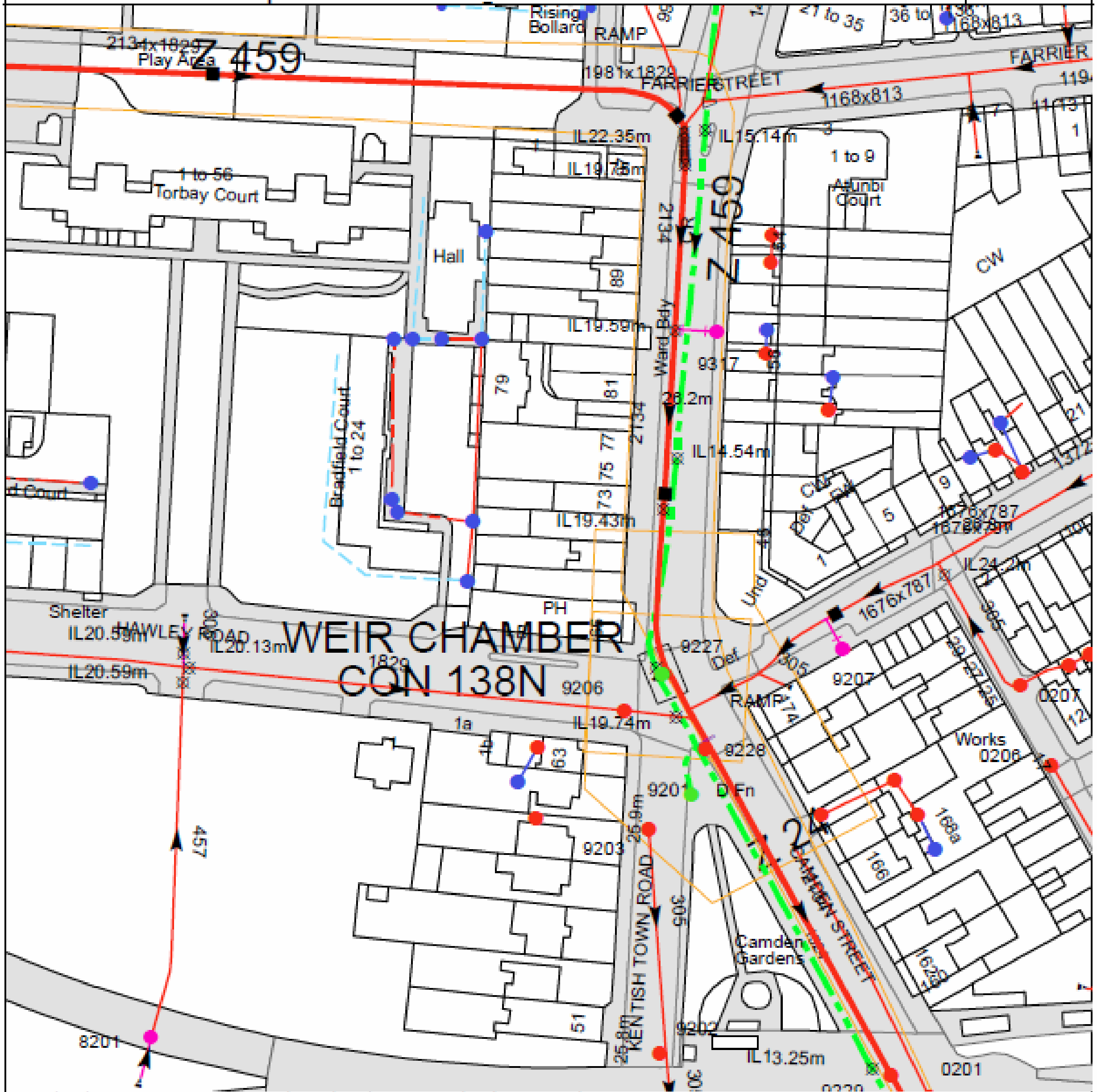


- Major Aquifer High
- Major Aquifer Intermediate
- Major Aquifer Low
- Minor Aquifer High
- Minor Aquifer Intermediate
- Minor Aquifer Low

Environment Agency – Groundwater

APPENDIX D – Thames Water Sewer Records

Asset Location Search Sewer Map - ALS/ALS Standard/2017_3569509



The width of the displayed area is 200 m and the centre of the map is located at OS coordinates 528931,184312

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.

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
0207	n/a	n/a
9227	26.01	n/a
02FJ	n/a	n/a
02FI	n/a	n/a
9207	n/a	n/a
03DH	n/a	n/a
03CI	n/a	n/a
03CE	n/a	n/a
03DF	n/a	n/a
93EA	n/a	n/a
93ED	n/a	n/a
93DC	n/a	n/a
9317	26.26	n/a
93DD	n/a	n/a
93EG	n/a	n/a
93EH	n/a	n/a
04ED	n/a	n/a
93CC	n/a	n/a
94AF	n/a	n/a
94BH	n/a	n/a
9206	25.9	19.9
9203	25.87	23.75
9202	25.74	23.29
9201	n/a	n/a
9228	26.05	19.35
92AG	n/a	n/a
9229	26.38	19.17
92AF	n/a	n/a
92AB	n/a	n/a
02AF	n/a	n/a
0206	25.63	23.93
8201	26.24	24.17
92DE	n/a	n/a
92EB	n/a	n/a
92DI	n/a	n/a
93CB	n/a	n/a
93CA	n/a	n/a
93CF	n/a	n/a
93CE	n/a	n/a
83AD	n/a	n/a
93BJ	n/a	n/a
93CD	n/a	n/a
93BI	n/a	n/a
93BE	n/a	n/a

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Sewer Flooding
History Enquiry

Property Searches

Gyoury Self Partnership (St Albans) LLP

Search address supplied	Pats Newsagent 69 Kentish Town Road London NW1 8NY
Your reference	13145NA
Our reference	SFH/SFH Standard/2017_3569515
Received date	**16 May 2017**
Search date	**17 May 2017**

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

Sewer Flooding
History Enquiry

Property Searches

Search address supplied: Pats Newsagent,69,Kentish Town Road,London,NW1 8NY

This search is recommended to check for any sewer flooding in a specific address or area

TWUL, trading as Property Searches, are responsible in respect of the following:-

(i) any negligent or incorrect entry in the records searched;

(ii) any negligent or incorrect interpretation of the records searched;

(iii) and any negligent or incorrect recording of that interpretation in the search report

(iv) compensation payments

Thames Water Utilities Ltd
Property Searches, PO Box 3189, Slough SL1 4WW
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0845 070 9148

Sewer Flooding
History Enquiry

Property Searches

History of Sewer Flooding

Is the requested address or area at risk of flooding due to overloaded public sewers?

The flooding records held by Thames Water indicate incidents of flooding as a result of surcharging of public sewers in the area. Although Thames Water may have records of sewer flooding within the area, the details of the effect of this flooding on individual properties should be obtained from the current owners. This should include flooding from water courses and highway drains, neither, of which are the responsibility of Thames Water.

For your guidance:

- A sewer is "overloaded" when the flow from a storm is unable to pass through it due to a permanent problem (e.g. flat gradient, small diameter). Flooding as a result of temporary problems such as blockages, siltation, collapses and equipment or operational failures are excluded.
- "Internal flooding" from public sewers is defined as flooding, which enters a building or passes below a suspended floor. For reporting purposes, buildings are restricted to those normally occupied and used for residential, public, commercial, business or industrial purposes.
- "At Risk" properties are those that the water company is required to include in the Regulatory Register that is presented annually to the Director General of Water Services. These are defined as properties that have suffered, or are likely to suffer, internal flooding from public foul, combined or surface water sewers due to overloading of the sewerage system more frequently than the relevant reference period (either once or twice in ten years) as determined by the Company's reporting procedure.
- Flooding as a result of storm events proven to be exceptional and beyond the reference period of one in ten years are not included on the At Risk Register.
- Properties may be at risk of flooding but not included on the Register where flooding incidents have not been reported to the Company.
- Public Sewers are defined as those for which the Company holds statutory responsibility under the Water Industry Act 1991.
- It should be noted that flooding can occur from private sewers and drains which are not the responsibility of the Company. This report excludes flooding from private sewers and drains and the Company makes no comment upon this matter.
- For further information please contact Thames Water on Tel: 0800 316 9800 or website www.thameswater.co.uk

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DX 151280 Slough 13

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