FAO Planning Officer Thomas Sild [email thomas.sild@camden.gov.uk]

OBJECTION DOCUMENT ADDENDUM 01: FURTHER COMMENTS ON SURFACE WATER FLOOD RISK date 30 APRIL 2020 from

Additional Comments on Surface Water Flood Risk

- 1. Eldred Geotechnichs submitted BIA Document dated February 2020 makes various comments related to ground water flood risk specific to the application.
- 2. The study confines and caveats its assessment solely to the basement aspect of the proposal alone [i.e. item 83 states the assessment is caveated '...to the effect that instructions for assessment precluded consideration of risk both to property beyond the site and to any part of the site but the proposed basement';
- 3. The study also then adopts and validates 'low surface water flood risk' based conclusions as 'fact' as shown in item 85 i.e.' ...the following conclusions are adopted as fact solely in the context of the limitations placed upon the scope of the assessment by the caveat referred to above, [a] the risk of flood from surface water is low; [b] the risk of flood from sewers is low to moderate and the risk may be mitigated by introducing a non-return valve to a pumped system'
- 4. The study also posits in item 86 that '...comments concerning the risk of groundwater flood have not been adopted' stating various sources do not '...provide sufficient information for consideration of risk consequent upon the proposed basement construction'.
- 5. Similarly, the same study states in item 87 that '...the potential impact of the basement scheme upon flood risk to other property was **not** considered. Policy CC3[c] requires developers to consider the impact of development upon other property in areas of risk of flooding. The Camden SFRA considers that the passage at the rear of Willow Cottages currently has a low [o.1%] probability of surface water flooding risk but that the consequent flood hazard is significant, causing danger for most.'

This effectively means that

- the BIA study assesses the basement in terms of 'Surface Floodwater Risk' only and that sourced information shows the risk to be 'low'.
- The study does not consider any of the contiguous properties including Grade II Listed Willow Cottages and rear access-amenity that are impacted on by the proposal as allegedly the risk level is also 'low'.

The above BIA position on Surface Water Flood Risk is fundamentally flawed, based on false assumptions and incorrect conclusions i.e.

• MET OFFICE ANNUAL & MONTHLY RAIN FALL DATA

The earlier submitted annual and monthly rainwater information clearly shows the quantitative and statistical shortcomings of the 8 month period used to define the BIA submission analysis.

See Anomaly 02 of Willow Cottages Objection Document date 25042020

[extract: This is borne out by recorded Met Office rainfall figures - See attached rainfall data [Table_01_Recorded Rainfall Heathrow 1948 to 2020] which shows official rainfall figures recorded from January 1948 to March 2020 e.g.

• From these figures you will see that for the same 8 month period [August 2018 to March 2019] over the recorded 73 years, 52 years have HIGHER rainfall readings than those within the BIA designated period i.e. 72.2%!

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- The Met Office recorded annual rainfall figures for 2018 and 2019 was 580mm and 561.7mm respectively. The table shows that for 40 of the 73 recorded years, the annual rainfall was an average of 1501.6mm.
- The 1501.6mm annual average is 259% higher rainfall for 55% [40 years] of the total recorded rainfall period of 73 years than the 2018-2019 BIA assessment period!

The BIA data is clearly not representative nor reflective of real rainwater conditions]

CAMDEN POLICY DOCUMENT 'MANAGING FLOOD RISK IN CAMDEN'

When one views Camden policy document 'Managing flood risk in Camden The London Borough of Camden flood risk management strategy', one sees that Willow Road is within area 'Hampstead Town' [see Table 6.1 Key locations at risk of flooding in Camden North] and is identified as an area of high risk from surface flooding [see extract '6.3.2 Hampstead Town: This area covers a range of different locations to the west and south of Hampstead Heath. Enhanced modelling estimates large numbers of properties may be within the Very Significant and Significant risk bands. Flooding is generally caused by direct rainfall on impermeable surfaces generating relatively high surface runoff velocities over roads and water collecting at low points. Five different locations have been identified as having flood risk'.

This clearly contradicts the Eldred Geotechnics BIA document which states that there is no risk of flooding to either 33 Willoughby Road or the listed Willow Cottages. It should be remembered that Willow Cottages is set within a much lower trough at a lower level 'down stream' from the applicant, the cottages all sit on top of a subsidiary of the River Fleet and originally the site was for growing water intensive water cress.

The following extract is pertinent the submitted BIA document does not address the real levels of possible flooding specific to the actual conditions underlying these listed cottages i.e. Extract - 'Finally DP27 — Basements and lightwells states that in determining proposals for basement and other underground development, the Council will require an assessment of the scheme's impact on drainage, flooding, groundwater conditions and structural stability, where appropriate. The Council will only permit basement and other underground development that does not cause harm to the built and natural environment and local amenity and does not result in flooding or ground instability. The Council will not permit basement schemes which include habitable rooms and other sensitive uses in areas prone to flooding.'

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OBJECTION DOCUMENT ADDENDUM_01: FURTHER COMMENTS ON SURFACE WATER FLOOD RISK date 30 APRIL 2020 from

• LANDMARK FLOOD REPORT No.241664144-1 for Willow Cottages

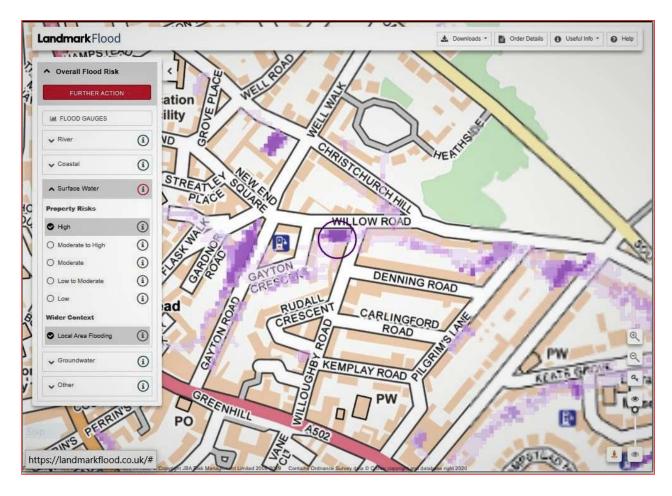


FIGURE: Extract From Landmark Flood Report No 241664144-1 showing areas of HIGH RISK [purple] from Surface Water flooding

- Willow Cottages
- Willow Road
- Gayton Crescent
- Gayton Road
- Willoughby Road

Landmark Flood Report 241664144 clearly shows a significant and very real risk of flood from Surface Water to Grade II Listed Willow Cottages [see Pages 1-6 as attached to the end of this document]. The 'High' risk status for onsite Surface Water Flooding to Willow Cottages is seen be for both 1:75 period and 1:200 period.

The same figure below [location plan] also shows areas of significant and HIGH risk from Surface Water Flooding to immediate and local areas to Willow Cottages and to the planning application site, 31 Willoughby Road, which is contiguous and abutting to the national heritage asset, Willow Cottages by way of a shared boundary.

This clearly shows that not only is there a very significant and HIGH risk of Surface Water Flooding to contiguous and neighbouring properties, but that, by implication, through sheer proximity, would suggest that the application

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OBJECTION DOCUMENT ADDENDUM_01: FURTHER COMMENTS ON SURFACE WATER FLOOD RISK date 30 APRIL 2020 from

site is subject to Surface Water Flooding. All this data and information is freely available but has been omitted from the BIA documentation. In fact, it has been factored and caveated as either not applicable or not relevant.

CONCLUSION

This addendum on Surface Water Flooding clearly shows further that the submitted BIA document is severely selective in

- 1. the use of proper and correct representative rainfall data,
- 2. in reflecting proper and correct policy documents on Flood Risk as published by Camden, and
- 3. accessing proper and correct flood risk assessments to both the applicant's site and more importantly in respect to dealing with multiple heritage assets.



Landmark Flood



Overall Flood Risk



The property is at a significant risk of Surface Water flooding. Further assessment is recommended to understand the likely depth of flood waters. Please refer to the Professional Opinion and Recommendations section on page 1 of this report. To explore the risk further, please visit the online viewer.



Insurability

37 Willow Road, NW3 1TN may not be eligible for the Flood Re scheme which would mean the flood part of the property's insurance cannot be transferred to Flood Re. We recommend obtaining buildings and contents insurance terms before exchange of contracts in order to ensure home insurance can be acquired at standard terms. More information is provided at the back of this report.



Flood Defences

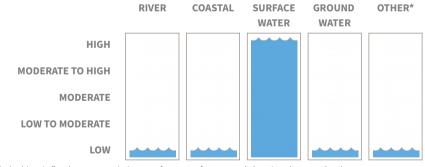
Are there existing river/coastal flood defences that have been identified and taken into account in our overall risk assessment?

No



Individual Flood Risks

The gauges below detail the level and type of individual flood risks at the property.



 * Includes historic flood events, proximity to surface water features and elevation above sea level

This report is issued for the property described as: 37 Willow Road, LONDON, NW3 1TN

Report Reference: **241664144**

National Grid Reference: **526730 185860**

Customer Reference: PO2020/0927/P_HCF

Report Date: **27 April 2020**





CONTACT DETAILS

f you require any assistance please contact our customer support team on:

0844 844 9966

or by email at: helpdesk@landmark.co.uk





Professional Opinion and Recommendations

Please see below our recommendations and next steps with regards to the property.



Overall Flood Risk



Professional Opinion

Having reviewed the risk of flooding to the property, Landmark's environmental consultants consider the risk of flooding to be significant. Please note the following findings and recommendations:

Surface Water Flooding
 The property is within an area that is at a high risk of Surface Water flooding. This is because there is the potential for flooding to occur fairly frequently or with depths that could result in significant impact.

The property purchaser may wish to investigate any additional flood risks to the property highlighted on the flood gauges using the flood section of this report.

Recommendations

- Landmark recommend carrying out a follow on report to understand the expected depth of flood waters at
 the property, as well as the protection level of any defences found to benefit the property. Understanding the
 likely depths of flooding is important as it will both help to reassess the risk and identify what the most
 practical approach is to protect the property. The required follow on report, a Flood Solutions Consult, will
 cost £99 + VAT.
- 2. If your property is a new build, flood risk will likely have been investigated in more detail as part of the planning process. In addition, if your property has recently flooded we may need to take a different approach to address the risk. Please call us for more details.
- 3. You should ask the seller and other nearby residents whether or not flooding has occurred in the area previously. If it has, what was the impact and where were the affected areas.
- 4. As a high risk of flooding has been identified, Landmark recommend the property purchaser/owner explores the online viewer to understand the risks further.

Insurance

37 Willow Road, NW3 1TN may not be eligible for the Flood Re scheme which would mean the flood part of the property's insurance cannot be transferred to Flood Re. We recommend obtaining buildings and contents insurance terms before exchange of contracts in order to ensure home insurance can be acquired at standard terms. More information is provided at the back of this report.

Flood Risk

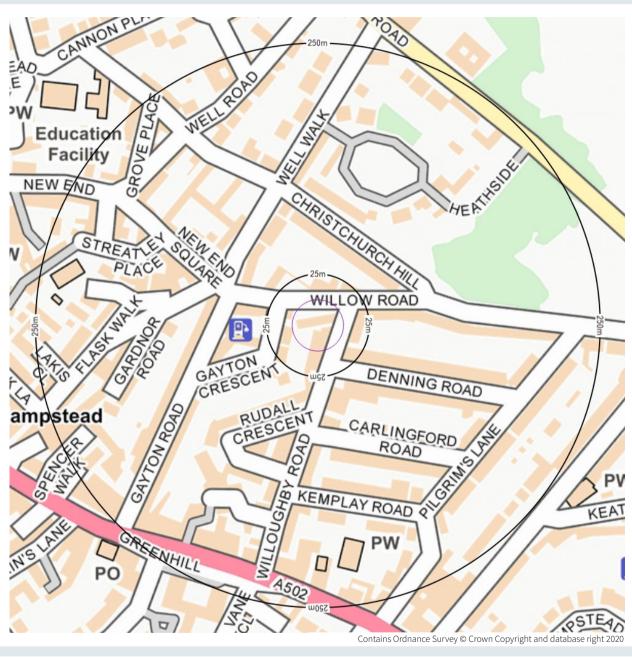
Flood risk is based on probability; to understand more about flood and the information reviewed, including flood protection measures, please explore the flood section of this report or visit the 'Know Your Flood Risk' website at: www.knowyourfloodrisk.co.uk.

Useful Information:

No physical site inspection has been carried out or is proposed. This report highlights only the information which we have determined should be drawn to your attention however, other risks may be present. To review the complete information and for a full list of the data used for this report, please see the Useful Information section on the online viewer. Available at https://landmarkflood.co.uk/?guid=373a07e6-33b9-4c08-b5b8-d066f5c5b21b.

Property Location





Property
Search Radii

Property Purchaser Guide



Understanding this report

The purpose of this report is to provide a professional opinion on the likelihood of flooding at the property. The front page provides an overall assessment, an indication of the availability of insurance, as well as a flood gauge which is broken down into River, Coastal, Surface, Groundwater and Other flood risks to help visualise the potential flood risks. Within the report, we provide recommendations and further detail of any risk requiring further attention.

Overall Flood Risk

The overall flood risk is an assessment of all the flood data which has been analysed. It may differ from the individual risks on the flood gauge as we consider the overall risk to the property.

Risk Rating

Landmark Information Group provide one of three possible responses for the Overall Flood Risk at the property. These are:

Passed: this means no risk of flooding has been identified.

Passed moderate: this means that while potential flood risks have been found, these are not considered significant or frequent enough for a Further Action to be issued. The property purchaser should refer to the online viewer to explore these potential issues further.

Further Action: this means a significant risk of flooding at the property has been identified. Further assessment will be required.

Insurability

Based on the data assessed within this report, an indication of whether buildings insurance is likely to be available and affordable is provided.

Flood Defences

If river/coastal flood defences are known to be present, these are assumed to be operational and are taken into consideration in our Overall Flood Risk analysis.

Individual Flood Risks

These enable you to easily identify your level of risk from the various causes of flooding. However, a residual risk of flooding may be present if flood defences fail. We therefore, provide on the Professional Opinion and Recommendation

page the level of risk should any defences identified fail. It is important to note that flood defences do not usually protect the site against groundwater or surface water.

Flooding Types

There are several types of flooding taken into account when making our overall opinion. These are explained below. Where a risk is found, this is shown on the front page and further details are provided within the body of the report.

River Flooding

River flooding occurs when rivers and streams are unable to carry away floodwaters within their usual drainage channels. River flooding can cause widespread and extensive damage because of the sheer volume of water.

Coastal Flooding

Coastal flooding results from a combination of high tides, low lying land and sometimes stormy conditions. Coastal flooding can cause widespread and extensive damage because of the sheer volume of water.

Surface Water Flooding

Surface water flooding is common during prolonged or exceptionally heavy downpours, when rainwater does not drain away into the normal drainage systems or soak away into the ground.

Ground Water Flooding

Groundwater flooding generally occurs during long and intense rainfall when underground water levels rise above surface level. Groundwater flooding may last for weeks or several months.

Other Flooding

We analyse any historic flood events records, the proximity of the property to surface water features and the elevation of the property above sea level to enhance our overall analysis of the property.

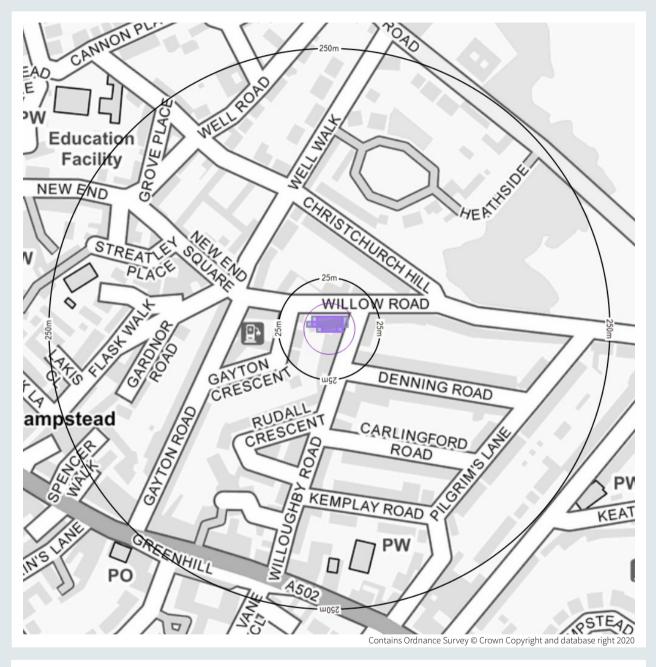
Next Steps:

If you require any assistance, please contact our customer service team **0844 844 9966** or **helpdesk@landmark.co.uk**.

Surface Water Flooding



The map below shows the location of surface water flood risks that may affect the property. We detail the information we believe requires your further attention in the table on the following page and also on the Professional Opinion and Recommendations page. If you wish to explore these features and the surrounding area further, please visit the online viewer.



Surface Water Flooding

Surface Water greater than 1m on site (return period: 1/75)

Surface Water 0.3m - 1m on site (return period: 1/75)

Surface Water greater than 1m on site (return period: 1/200)



Surface Water Flooding



Surface Water Flooding

We have highlighted below flood risks at or around the property. Please see the Professional Opinion and Recommendations page for further information and next steps guidance.

Details	Distance	Contact
Surface Water Flooding Return Period: 1 in 75		
Depth of flood water: Greater than 1.0m Data Provider: JBA Risk Management Limited	On Site	1
Depth of flood water: Greater than 0.3m and Less than or equal to 1.0m Data Provider: JBA Risk Management Limited	On Site	1
Surface Water Flooding Return Period: 1 in 200		
Depth of flood water: Greater than 1.0m Data Provider: JBA Risk Management Limited	On Site	1

Flood data provided by JBA Risk Management Limited. © Copyright JBA Risk Management Limited 2008-2020

What does this mean?

- Surface Water Flooding Return Period: 1 in 75: This area is at risk of flooding in a 1:75 year rainfall event (an event that has a 1 in 75 chance of happening in any given year). It is expected that in this event a large amount of rainfall would overwhelm the drainage systems or be unable to soak away into the ground immediately, and would therefore gather at the areas shown on the map. The depth information above will help you understand how severe any resulting flood might be. If your property/site is within this area we would recommend you consider further investigations to clarify the impact of any flooding.
- Surface Water Flooding Return Period: 1 in 200: This area is at risk of flooding in a 1:200 year rainfall event (an event that has a 1 in 200 chance of happening in any given year). It is expected that in this event a large amount of rainfall would overwhelm the drainage systems or be unable to soak away into the ground immediately, and would therefore gather at the areas shown on the map. The depth information above will help you understand how severe any resulting flood might be. If the predicted flood levels at your property/site are deep (over 1m) we would recommend you consider further investigations to clarify the impact of any flooding.



Further Information

Please visit the online viewer to understand more about river & coastal flood risks at and around the property and the data used in this analysis.