

Three Counties Flood Risk Assessment

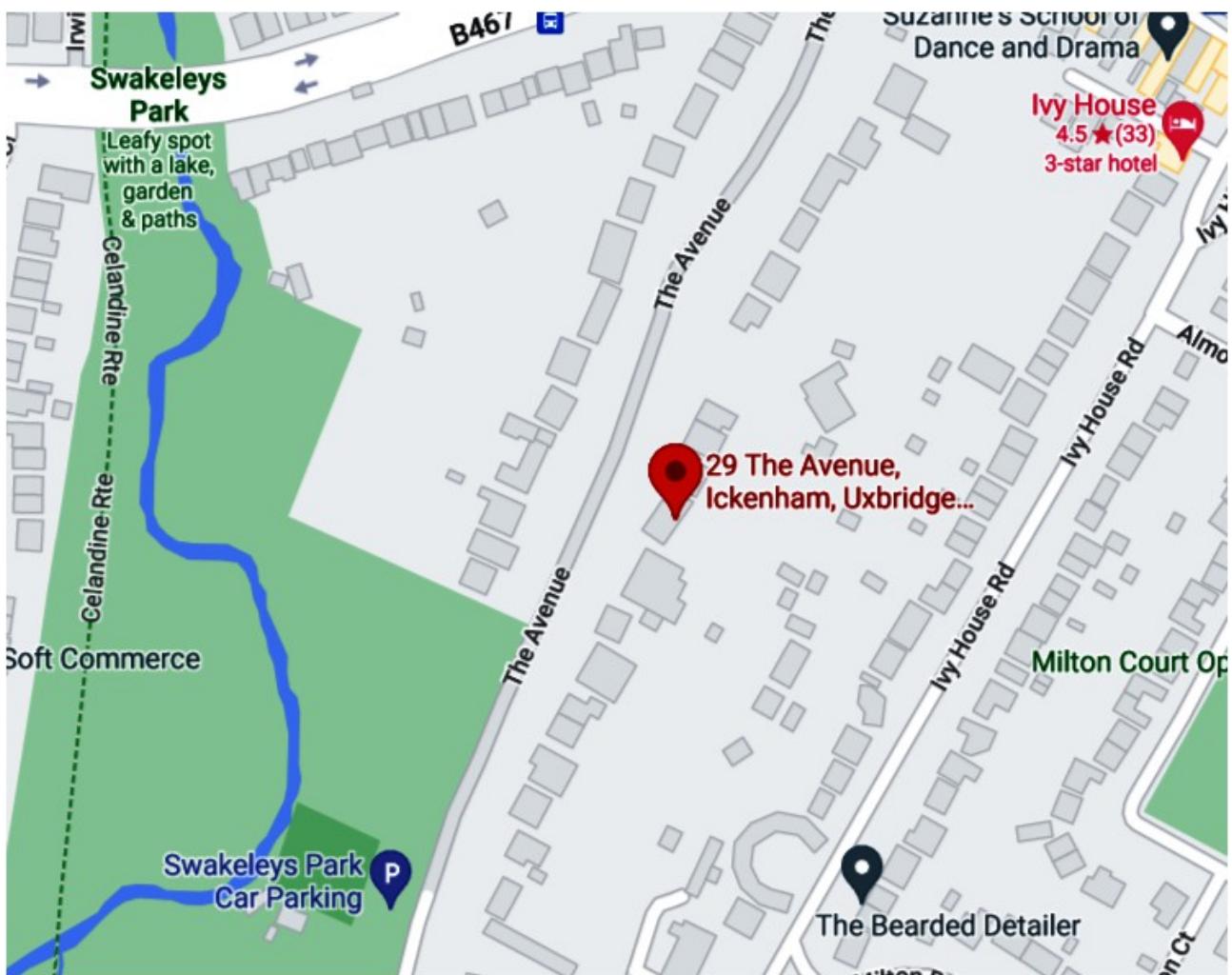
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FLOOD RISK ASSESSMENT / DESK TOP STUDY

REPLACEMENT RESIDENTIAL BUILDING AT 29 THE AVENUE ICKENHAM

UXBRIDGE UB10 8NR

DATED : 20 SEPTEMBER 2022



GEOGRAPHICAL LOCATION



Flood map for planning

Your reference

**29 THE AVENUE
ICKENHAM**

Location (easting/northing)

507540/186134

Created

20 Oct 2022 8:36

Your selected location is in flood zone 2, an area with a medium probability of flooding.

Flood map for planning

Your reference

29 THE AVENUE**ICKENHAM**

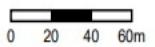
Location (easting/northing)

507540/186134

Scale

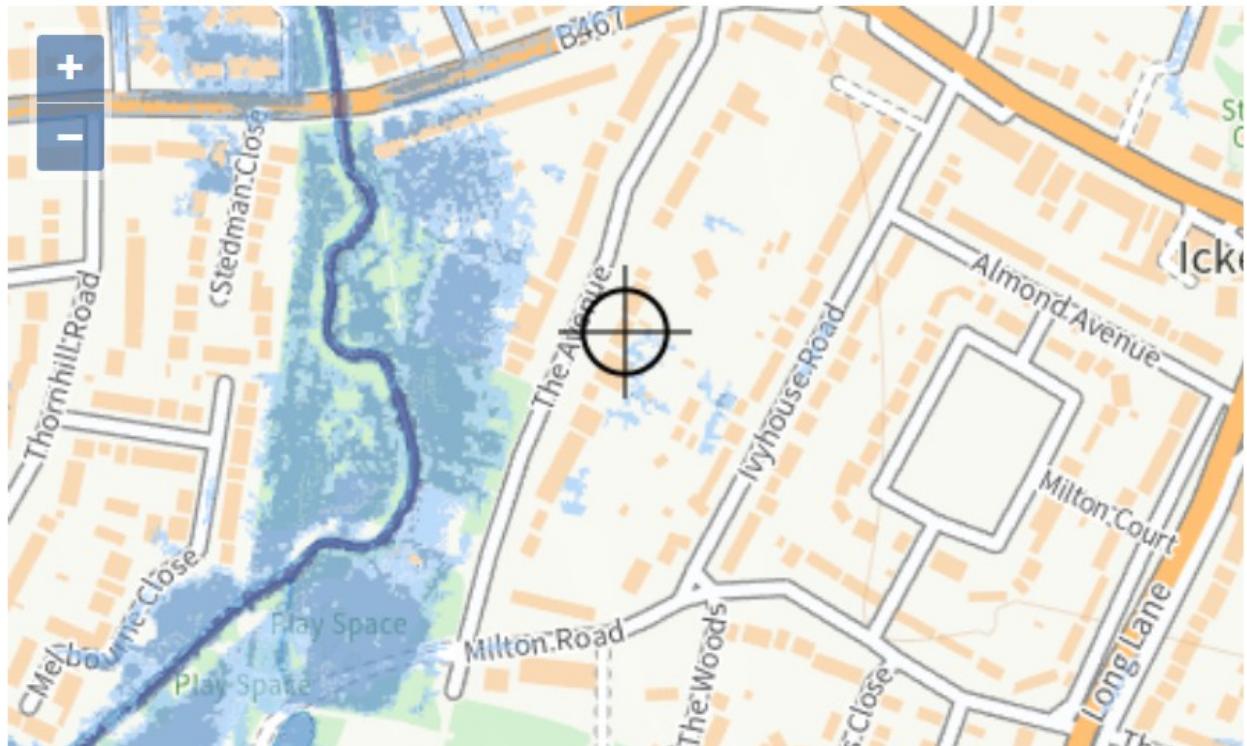
1:2500

Created

20 Oct 2022 9:06 Selected point Flood zone 3 Flood zone 3: areas benefitting from flood defences Flood zone 2 Flood zone 1 Flood defence Main river Water storage area

Flood risk

Medium risk: depth



Surface water flood risk: water depth in a medium risk scenario

Flood depth (millimetres)

Over 900mm 300 to 900mm Below 300mm Location you selected

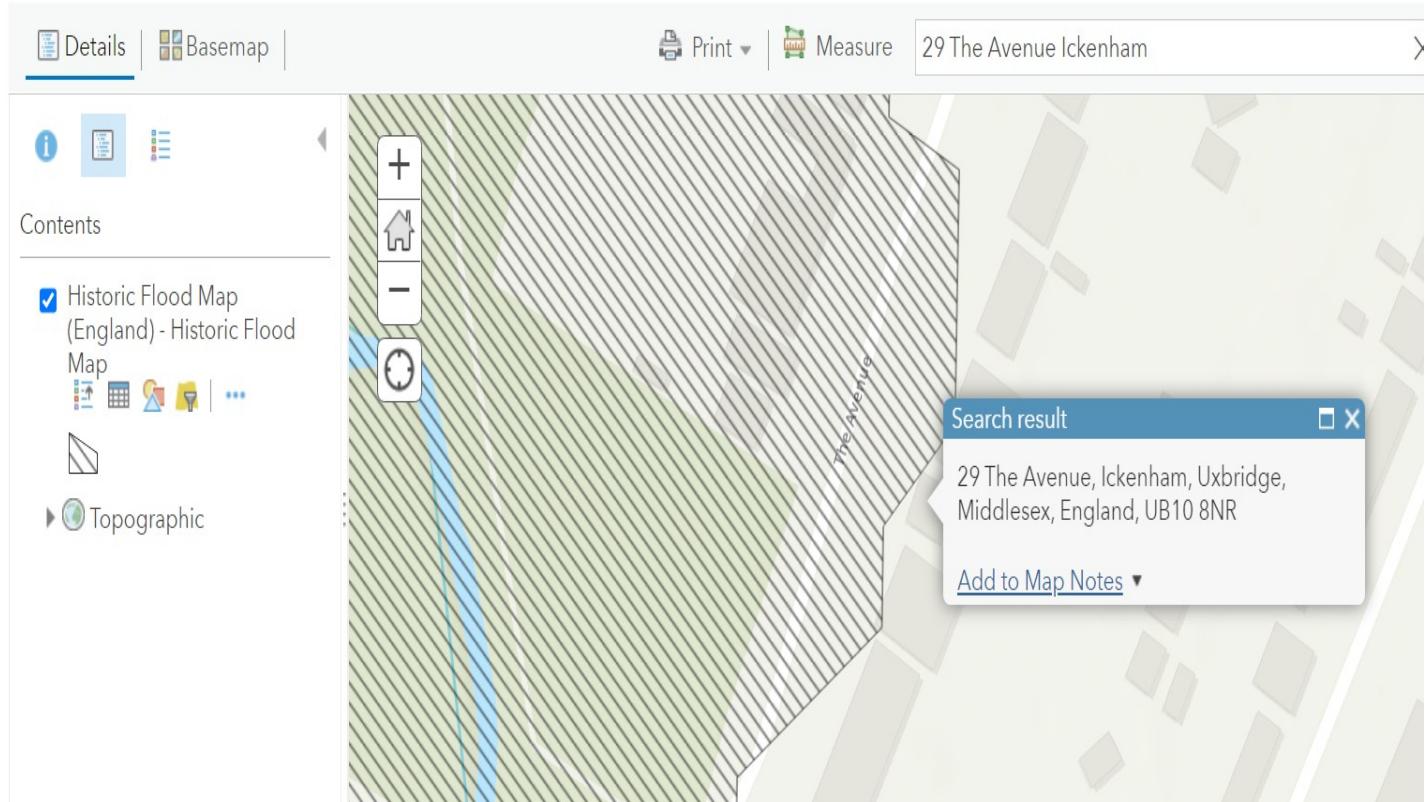
MEDIUM RISK IS THE EQUIVALENT OF THE 1 IN 100 FLOOD RETURN.

THREAT IS VERY LOW -IF ANY AT ALL

HISTORIC FLOODING .

ArcGIS ▾ Historic Flood Map (England)

Open in Map Viewer Modify Map ⚙



This shows that flooding has not reached the site from the River Pimm but has been close to the property under assessment .

The EA is on record as showing that it considers the threat from fluvial sources is “very low” and that the threat from surface water is low.

PROPOSED REPLACEMENT OF AN EXISTING DWELLING AT 29 THE AVENUE ICKENSHAM

FOOD RISK ASSESSMENT / DESK TOP STUDAY.

This report is compiled for a planning application . Detailed plans are supplied by the applicant within the application.

It is written under the criteria within the National Planning Police Framework (NPPF) and the Environment Agency (EA) Guidance notes to local authorities.

The EA modelled flood mapping shows that the site lies in flood zone 2 but historic flood mapping shows that any flooding has fallen short of the property under assessment .

The EA accedes to the fact that it's mapping is for general use only , not to be relied on and is totally inappropriate for site specific assessment.

NPPF states that all forms of authenticated mapping should be used by flood risk assessors in order to form a balanced picture of the threat to the site under assessment.

The proposal is to build a replacement building in place of an existing building. It's considered the time has come to create further space for the main domicile. The increase in footprint is not considered to be overreaching. It does not fall in the functional flood zone.

The criteria

NPPF criteria looks upon replacement of an existing building as not requiring the sequential test especially as the site has no history of flowing and it stands outwith the functional flood plain. Under the NPPF criteria the proposal is looked upon as a minor development . Its classification is “more vulnerable” as it would involve residential usage.

Under NPPG it states that minor developments are unlikely to cause significant flood risk unless they :

- Have an adverse effect on a watercourse , flood plain or its flood defences
- Would Impede access to flood defence and management facilities, or
- Where the cumulative impact of such developments would have a significant effect on local flood storage capacity or flood flows .
- None of the above applies in this case.

The NPPG definition of minor development is as follows :

It's flood risk category would remain the same as that existing which is more vulnerable due to its residential usage.

Table 3 in the NPPF flood compatibility zoning shows the proposal is allowable without the sequential test being carried in a case such as this. Please see graphic table below

Table 3: Flood risk vulnerability and flood zone 'compatibility'

Flood risk vulnerability classification (see table 2)	Essential infrastructure	Water compatible	Highly vulnerable	More vulnerable	Less vulnerable
Flood zone (see table 1)	Zone 1	✓	✓	✓	✓
	Zone 2	✓	✓	Exception Test required	✓
	Zone 3a	Exception Test required	✓	✗	Exception Test required
	Zone 3b functional floodplain	Exception Test required	✓	✗	✗

Key: ✓ Development is appropriate.
 ✗ Development should not be permitted.

The FRA does have to consider the sustainable lifetime of the proposed property / This is 100 years.

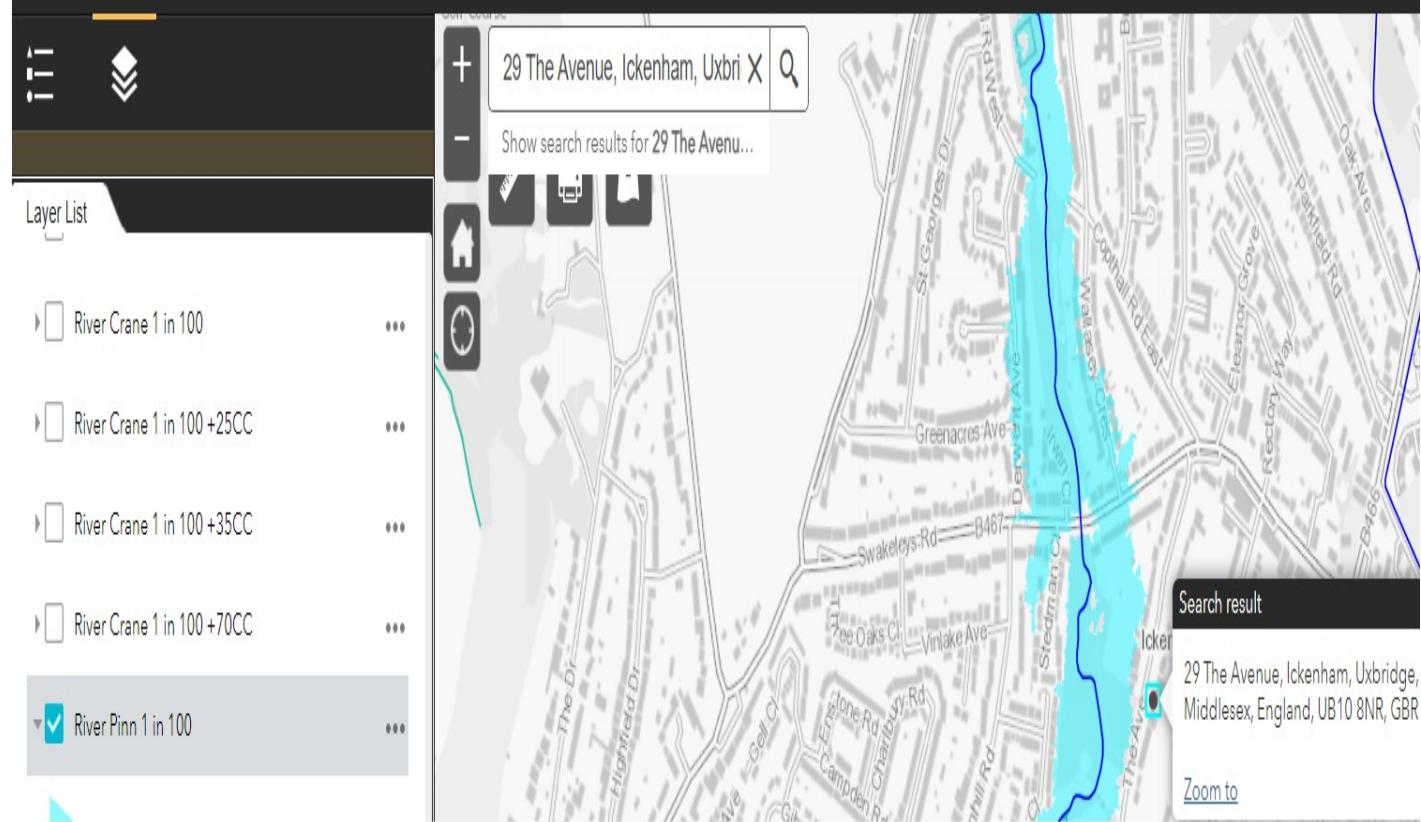
Although the present threat to the site is considered to be very low by the EA climate change has to be taken into consideration especially when the occurrence of violent storms which have already had a marked effect on weather patterns across the country as a whole.

West London Strategic Flood Risk Assessment

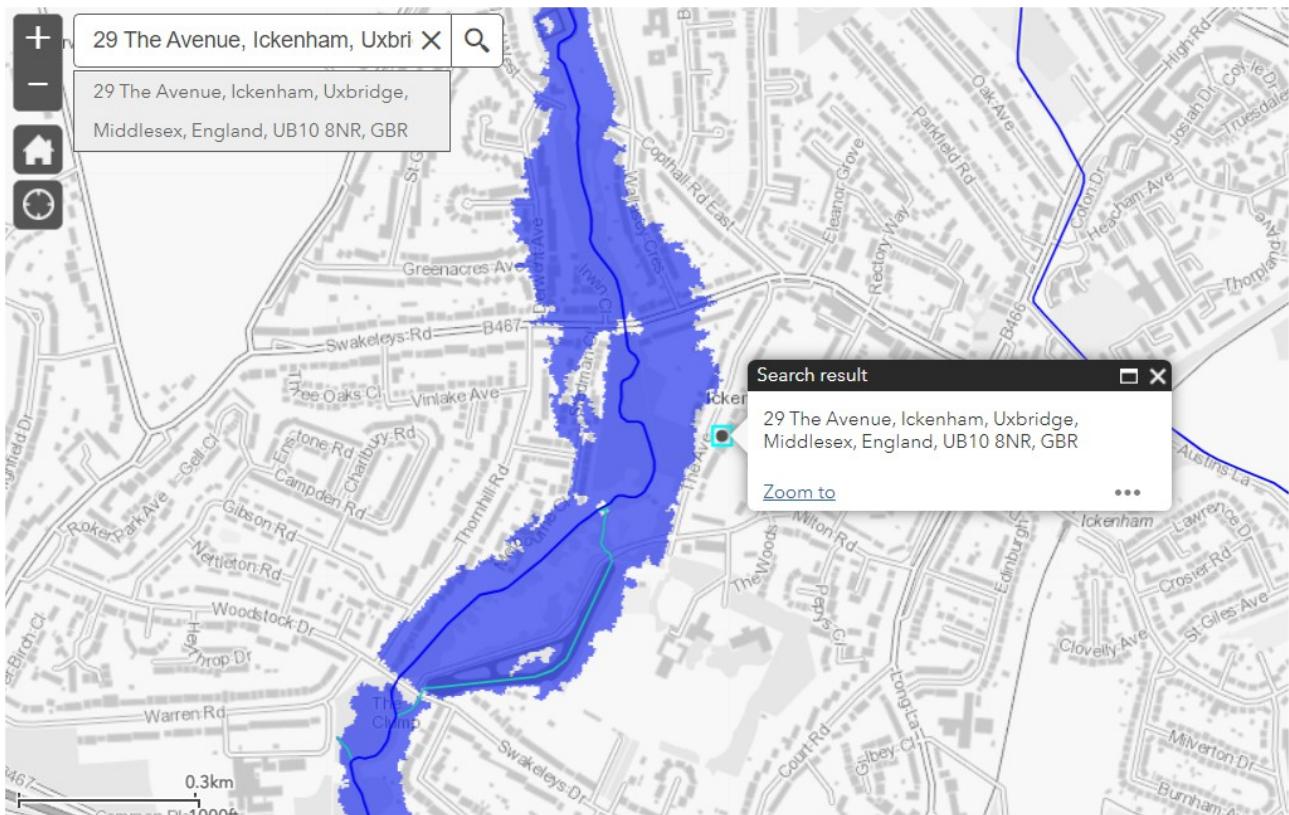
This authority has supplied flood mapping over a wide area of London. Consultants have been used to draw up flood plans for major watercourses and ordinary watercourses as well as flood mapping for all other sources of flooding .

The mapping shows that the threat of fluvial flooding is from the River Pinn to the west of the proposed development.

The 1 in 100 flood mapping shows that the site would be unaffected by any flooding from the river Pinn.(please see on page below)

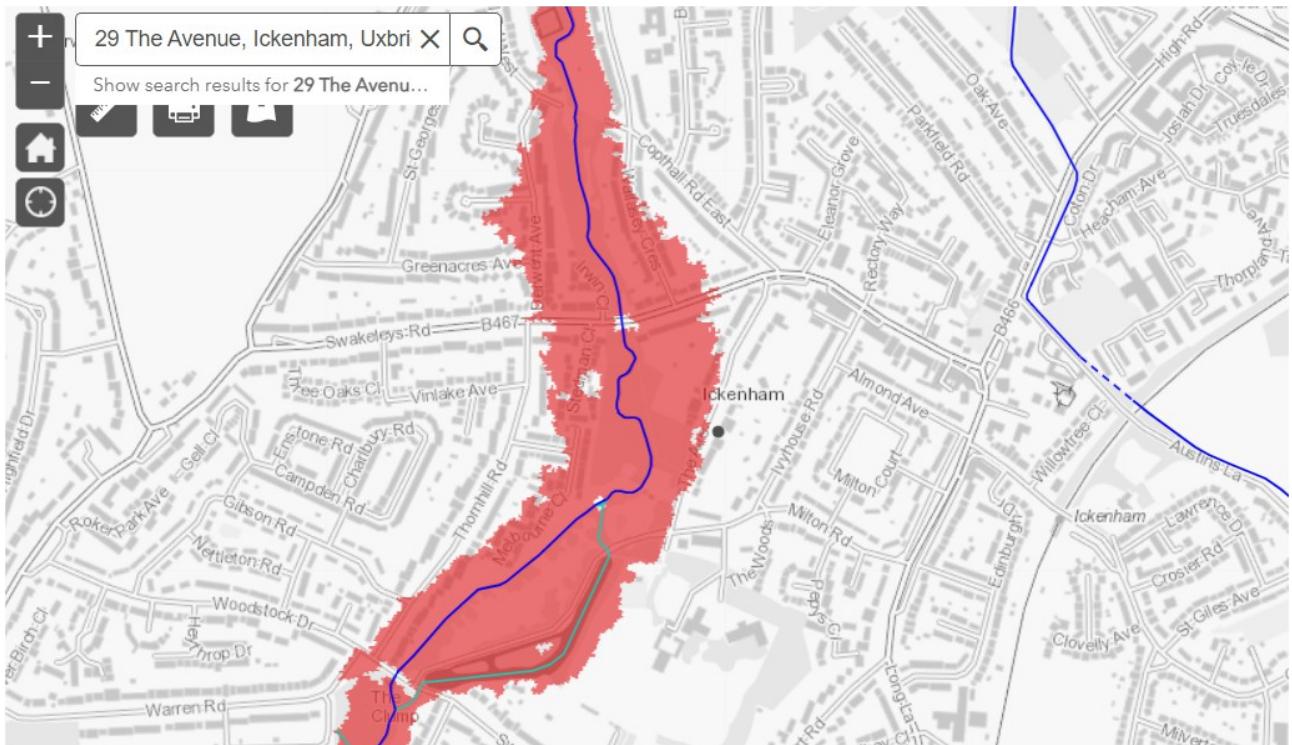


The SFRA also includes fluvial flooding plus 35% climate (below)



Again the site would be outside the flood plain.

The fluvial mapping also includes flood mapping for the 1in 100 plus 70% climate change which would very much reflect the residual flood threat for this area. Residual flood threat is where flooding occurs under exceptional circumstances well outside the parameters of a normal flood risk assessment. The site is shown just outside flood mapping (see mapping below)



These levels would be protected by a massive flood protection project named TE 2021 which is being carried out right through this century and beyond. It will cost billions of pounds and is designed to alleviate any future flooding right across the Capital and its suburbs. All major watercourses would benefit from these works.

All defences in London and its suburbs will be regularly monitored and remedial works will be carried out where the EA considers this necessary. This will last throughout this century and beyond.

Because of this there is no reason to believe the SFRA mapping is inconsistent with the performance of the River Pimm in the years to come.

THAMES WATER SEWER INCIDENCES are put at up to 40 in the whole of the area covered by West London. This is not considered to be significant It is presumed this is for a 10 year period.

SUSCEPTIBILITY TO GROUNDWATER is put at below 25% for this area .This is the lowest rate possible.

A SOURCE PROTECTION area lies to the West of the site under assessment but does not involve the site itself.

THERE IS A POSSIBLE THREAT FROM RESERVOIR WATER borne on the River Pinn The EA however is on record as saying that this is hardly to happen due to the history of husbandry and of inspection of reservoirs throughout the country.

Sustainable Drainage

There is plenty of room on site for the above to be carried out and there would appear to be sufficient permeability to support soakaways. However the local authority needs to rule on this using its local knowledge.

The applicant may be considering using mains drainage in the road outside the property for off-site drainage in which case separators should be fitted to ensure only clean water enters the mains. A flow control mechanism should also be installed to avoid any “surge” entering the receptor.

Offsite implications

There will be none with the measure as recommended.

Compensation

This is not required as the site lies outside the functional flood plain.

As the site is “actually” in Flood Zone 1 flood resilience measures are not required

All land to the East of the site is in Flood Zone 1 so this would afford a dry evacuation route away from the site in the unlikely event of this becoming necessary.

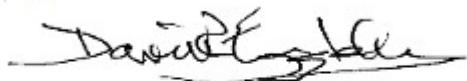
CONCLUSION

There is no marked history of the proposed site having flooded and mapping from the West Of London Strategic Flood Risk Assessment shows this will continue in the years to come. The threat from all sources is considered to be low.

It is also recommended that the ground floor level of the property should be set at 00.350m above ground level and the threshold should be set the same height above ground level. This is common practise these days for new build.

There is no doubt that the manifest workings of TE2021 and its associated works over the next century will make a massive contribution to the safety of householders, office workers and industrial employees in the area during the years to come.

Signed



David Eggleton
Managing Director.