

FLOOD RISK ASSESSMENT

MINOR DEVELOPMENT AT 202 Whitby Road Ruislip HA4 9DY

Dated : 17 September 2020

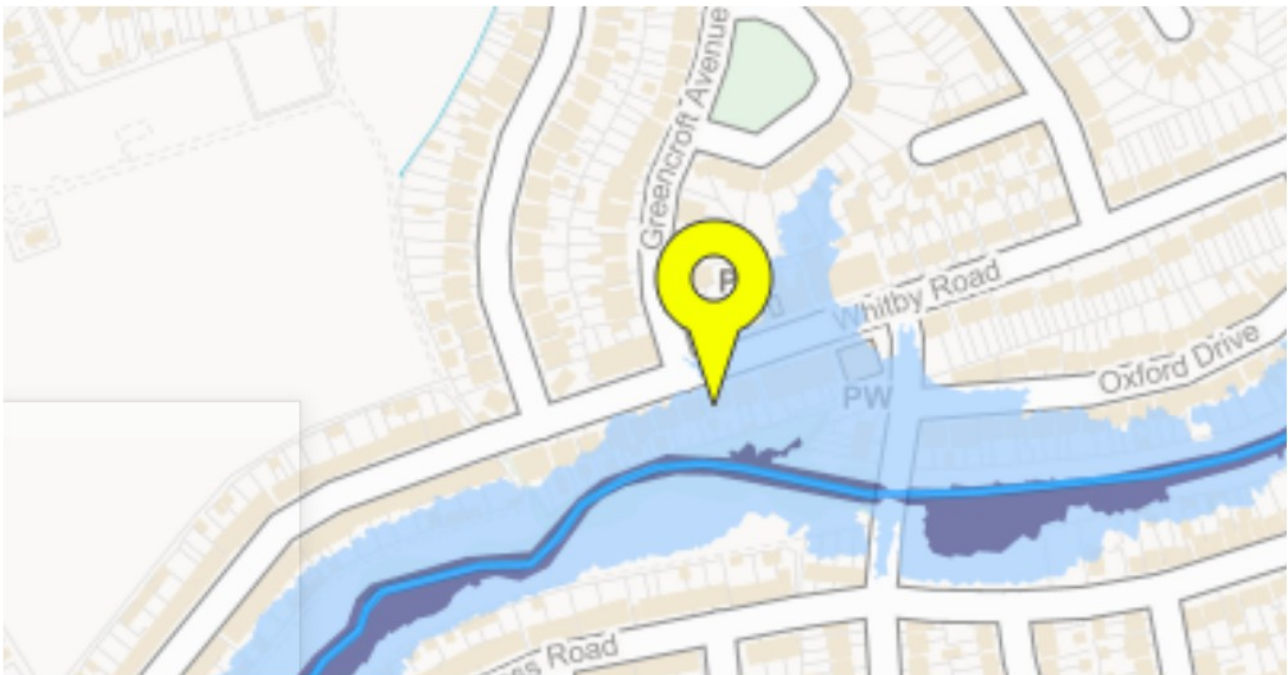


GEOGRAPHICAL LOCATION



SITE PLAN

ENVIRONMENT AGENCY FLOOD MAP FOR PLANNING



Flood map for planning

Your reference
whitby road

Location (easting/northing)
511237/186617

Created
17 Sep 2020 9:47

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

**PROPOSED EXTENSION TO A RESIDENTIAL PROPERTY AT 202 WHITBY ROAD
RUISLIP MIDDLESEX HA4 9DY**

FLOOD RISK ASSESSMENT / DESKTP STUDY.

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 site lies in Flood Zone 2 which means it has a medium probability of flooding.

The development is looked upon as “more vulnerable” as it is a residential proposal. Under NPPF criteria it is considered a “minor development”. The increase in footprint is circa 18 sq. metres. NPPF criteria states that as it is a minor development the sequential test is not required. The exception test is covered in this report. The perceived threat to the property is from the Yeading Brook

Internal works include adding a bedroom to the one which currently exists but this will be to cater for an addition to the family and will not attract new occupants into the flood plain.

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 :

Minor non residential extensions:: industrial/commercial/leisure etc. extensions with a footprint less than 250 m2.

Alterations:: development that does not increase the size of buildings e.g. alterations to the external appearance. householder development: For example; sheds, garages, games rooms etc. within the curtilage of the existing dwelling, in addition to physical extensions in the existing dwelling itself.

NPPF criteria states that minor development of this nature does not qualify for either the sequential or exception tests but that a flood risk assessment must be compiled.

According to the EA’s advices the minimum requirements for an FRA that is submitted to the Local

Planning Authority for Residential/Industrial/Commercial extensions less than 250m² within Flood Zone 2 and 3 should confirm that:

Floor levels within the proposed development will be set no lower than existing levels.

AND Flood proofing of the proposed development has been considered by the applicant and will be incorporated where appropriate.

OR

Floor levels within the extension will be set 300mm above the known or modelled 1%(1 in 100 chance each year) river flood level or 0.5% (1 in 200 chance each year) tidal and coastal flood level. This must be demonstrated by a plan to OS Datum/GPS showing finished floor levels relative to the known or modelled flood level. It is considered that the first option is applicable in this case.

These are minor extensions to the property and should be set at the same level as existing.

Flood Resilience Measures

It is recommended that the external doors should be made floodproof and that further flood resilience measures be taken.

- ◆ Both the inside and outside of the extension works should be coated with flood resilient material to a height 400mm above the ground level.
- ◆ The electrical wiring should drop from the ceiling to sockets 400mm above ground level.
- ◆ All drainage and waste pipes would be fitted with ‘non-return valves’ to prevent the ingress of contaminated water back into the building.
- ◆ No metal piping should be used under the extension to avoid future corrosion.
- ◆ The mortar mix should include flood protective material including the foundations.
- ◆ The ground floor should be of concrete rather than wood.
- ◆ The electrics should be connected to the mains box so that this controls all electrics to the whole property

Geology and Sustainable drainage

Records from the BGS have been examined and these show the presence of London Clay in the ground. This would inhibit the use of soakaways. The extension is so small that it would be recommended that water butts be used for surface water run off. A French Drain should also be installed to handle any overtopping in the event of an exceptional storm and transmit any overflow to an area in the garden that would be used for attenuation.

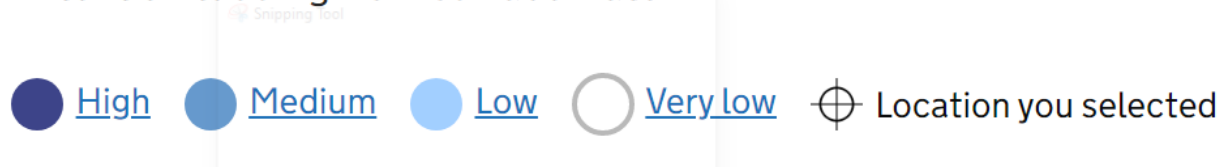
If the applicant wishes to use existing drainage then an interceptor should be fitted and also a flow control mechanism – such as a hydro-brake- to make sure there is no “surge” into the receptor.

Surface Water

Mapping from the EA shows that the extent of flooding from the above would be below 300mm which is acceptable to DEFRA for safe passage from the site.



Extent of flooding from surface water



The low classification sector in this surface water mapping shows the level of water could be slightly higher than that shown. High and medium levels show no threat.

BGS has no records of boreholes sunk in the era of the site. It is accepted however that the presence of London Clay acts as a “cap” to the rise of surface and groundwater.

Compensation

This is not required as the site lies in Flood Zone 2.

Evacuation

It can be seen from the EA flood mapping that the site lies within a few metres of flood zone 1.

Because of the site lies in an area where the flood velocity would be low and the flood levels would also be low. Flooding would be more akin to standing water and pooling. It has to be remembered , however , that the assessment has to consider the sustainable lifetime of the proposed development which is 100 years.

Taking climate change into account the property should be a subscriber to the EA floodline initiative which gives a three phase warning system. 1.Be aware of a possible flood threat. 2. Prepare to evacuate.3. Get out.

However in the FRAs we compile all over the country we make it clear that there is only one method of safe evacuation. That is to get out when the escape route is still dry .

The Floodline initiative may give occupants of the site a misconception as to how long they should stay on site before going. We consider that the sight of advancing floodwater can create panic particularly to the old ,infirm and the disabled and children as well.

Better to go at the first warning when everything can be done in a controlled and orderly manner and in the dry. If the flood waters do not actually reach the site then nothing is lost .

But there is a big gain in terms of safety. It will also show the evacuation plan works and will give everybody concerned the confidence of knowing the site owners value their safety.

As part of the evacuation procedure a predetermined sanctuary in the dry should be decided upon and agreed with the local authority

Also by using the first floor as “safe haven” during a flood event is not necessarily the answer . The reason being that vital services -such as water , gas and electricity- to the premises could be knocked out by the floods and this could cause major disruption to the safety and well being of occupants .

We have used this methodology on many occasions for FRAs throughout the country . We have had no objections from the local authorities involved in all the FRAs recommending this form of early evacuation

Quite simply it is better “to be safe than sorry” particularly when human lives are at stake.

Reservoir threat

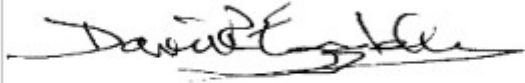
There is no threat to the site from this source.

CONCLUSION

It can only be concluded that the threat from fluvial and pluvial sources is low and in the event of an exceptional flood in the area there would be only pooling or standing water on the site under assessment. Flood Zone 1 would only be a few metres away but it is prudent for evacuation measures to be in place considering the sustainable lifetime of the property

It is considered that with all the recommendations made in this report including the flood resilience measures that the the threat to this proposed development is low and that there would be no offsite implications resulting from this proposed development.

Signed

A handwritten signature in black ink, appearing to read 'David Eggleton', written over a horizontal line.

David Eggleton
Managing Director.