

Flood Risk Assessment  
For Property  
16 Evelyn Avenue  
Ruislip HA4 ASN

20<sup>th</sup> January 2024

### Introduction

This Flood Risk Assessment has been prepared in conjunction with the guidance provided in the publication 'Technical Guidance to the National Planning Policy Framework' produced by the Department for Communities and Local Government in order to meet the objectives of the 'National Planning Policy Framework'. It has been produced in regards to 16 Evelyn Avenue, Ruislip HA4 ASN development for which planning permission is required.

The site area is 509m<sup>2</sup> (0.00509 HA)

### Application Planning Policy

National Planning Policy Framework (NPPF), issued by the Department for Communities and Local Government in December 2023, deals with development planning and flood risk based on planning zones and the Environment Agency Flood Map. The requirement of the policy is for flood zones and vulnerability classification relevant to the proposed development to be established and identified, based upon an assessment of existing and future conditions.

### Site Description and Location

16 Evelyn Avenue is a single storey bungalow.

The existing development manages surface water through gutters and rainwater pipes that drain to the public sewer.

### Proposed Development

Our proposal is to remove the existing conservation and garage to the rear side of the property. The area of existing coverage removed is 40m<sup>2</sup>. We will then provide a single storey rear / side extension with a proposed coverage of 62m<sup>2</sup>. Therefore, the difference of proposed coverage is only 22m<sup>2</sup>.

Flood Zones and what they mean.

Flood zone 1

Locations in flood zone 1 have a low probability of flooding. This means in any year land has a less than 0.1% chance of flooding from rivers or the sea.

Flood zone 2

Locations in flood zone 2 have a medium probability of flooding. This means in any year land has between a 1% and 0.1% chance of flooding from rivers and between a 0.5% and 0.1% chance of flooding from the sea.

Flood zone 3

Locations in flood zone 3 have a high probability of flooding. This means in any year land has a 1% or more chance of flooding from rivers, or a 0.5% or more chance of flooding from the sea.

The property is in the flood zone 2 and if you look at the 'Extent of flooding map' attached below, it shows the property is in the very low section of zone 2.

The nearest potential source of flooding to the site is from the River Pen

Sequential and Exceptional Test.

The proposed site falls into the Flood Zone 2. However, the development falls into the Minor Development Category and the National Planning Policy Framework' states: '...applications for minor development and changes of use should not be subject to the Sequential or Exception Tests but should still meet the requirements for site- specific flood risk assessments... '.

The purpose of this Flood Risk Assessment is to demonstrate that the proposed development will not increase the flood risk to the area or the existing property.

## Sources of Flooding

### 1. Fluvial Flooding.

The nearest possible source is the River Penn.

As shown on the 'Extent of flooding map' below, it shows the property is in the very low section of zone 2.

### 2. Tidal Flooding.

In this area where the property is located, it is unlikely to be affected.

### 3. Flood defences.

There no flood defences for this site area for the property.

### 4. Climate Change.

The predicted extent and depth of surface water / rain flooding for this location is 1 in 100 year and 1 in 1000 year. Therefore, it is below 150mm.

### 5. Surface water flooding.

The OS Mapping and the EA's Mapping shows that there are no indications of large canals in the area of the site, therefore the flood risk is minimal.

### 6. Drainage and infrastructure.

The drainage and infrastructure , already in place as existing. There will not be any change to the existing main drains and there will not be any drainage passing below the building.

### 7. Groundwater.

There have not been any historic flooding incidents within this arear of the property. The property is largely situated on soft landscaping and any all new external material will be permeable. For example, a rear patio, this will have permeable etc.

### 8. Canals, lake and reservoirs.

There are none in the area. Only the River Penn as noted above, where the property is in the very low section of zone 2.

The flood depth is less than 150mm in the worst cases, and as we are only increasing the site coverage by 22m<sup>2</sup> of this large site which is 509m<sup>2</sup> (0.00509 HA). We therefore consider that our proposed scheme is suitable for this site.

Our typical construction methods for our proposed extensions will as follows.

#### Proposed Floor Construction.

A suspended beam and block floor with 1500 gauge damp proof membrane, rigid floor insulation and a reinforced screed. There will be a 300mm void below. We will provide an underfloor ventilation (telescopic vents) which be 450mm minimum above the external ground floor. The existing property floor is a concrete slab.

#### Proposed external walls.

These will be of a cavity construction will a cavity wall filled with 90mm rigid insulation leaving a 10mm residual gap. The DPC will be a minimum of 450mm above the external ground level in order for it to fall in line with the telescopic vents.

#### Doors

Doors all doors will be of Upvc and sealed around all edges that will minimise any water entering the building.

#### Electrics

All sockets, switch, fuse board, utility lines etc. will be a minimum of 450mm above the internal floor level. (Note: This is a Building Regulations requirement)

#### Drainage

All new drainage will be either clay or Upvc pipes

Any pipes 400mm below ground will be sealed with foam and mastic.

Around the property we will be providing Aco drains, gravel and permeable paving to patios.

The remaining site is largely with soft landscape (grass). This will remain.

#### Conclusion.

The property / site is in the very low section of zone 2 were flooding is most unlikely to happen.

The flood depth is less than 150mm in the worst cases. This is large site which is 509m<sup>2</sup> (0.00509 HA) with a large amount of soft landscaping.

The increase of volume of water run-off is minimal.

Therefore, we consider that our proposed scheme is suitable for this site.



Environment  
Agency

## Flood map for planning

Your reference  
**<Unspecified>**

Location (easting/northing)  
**510085/188258**

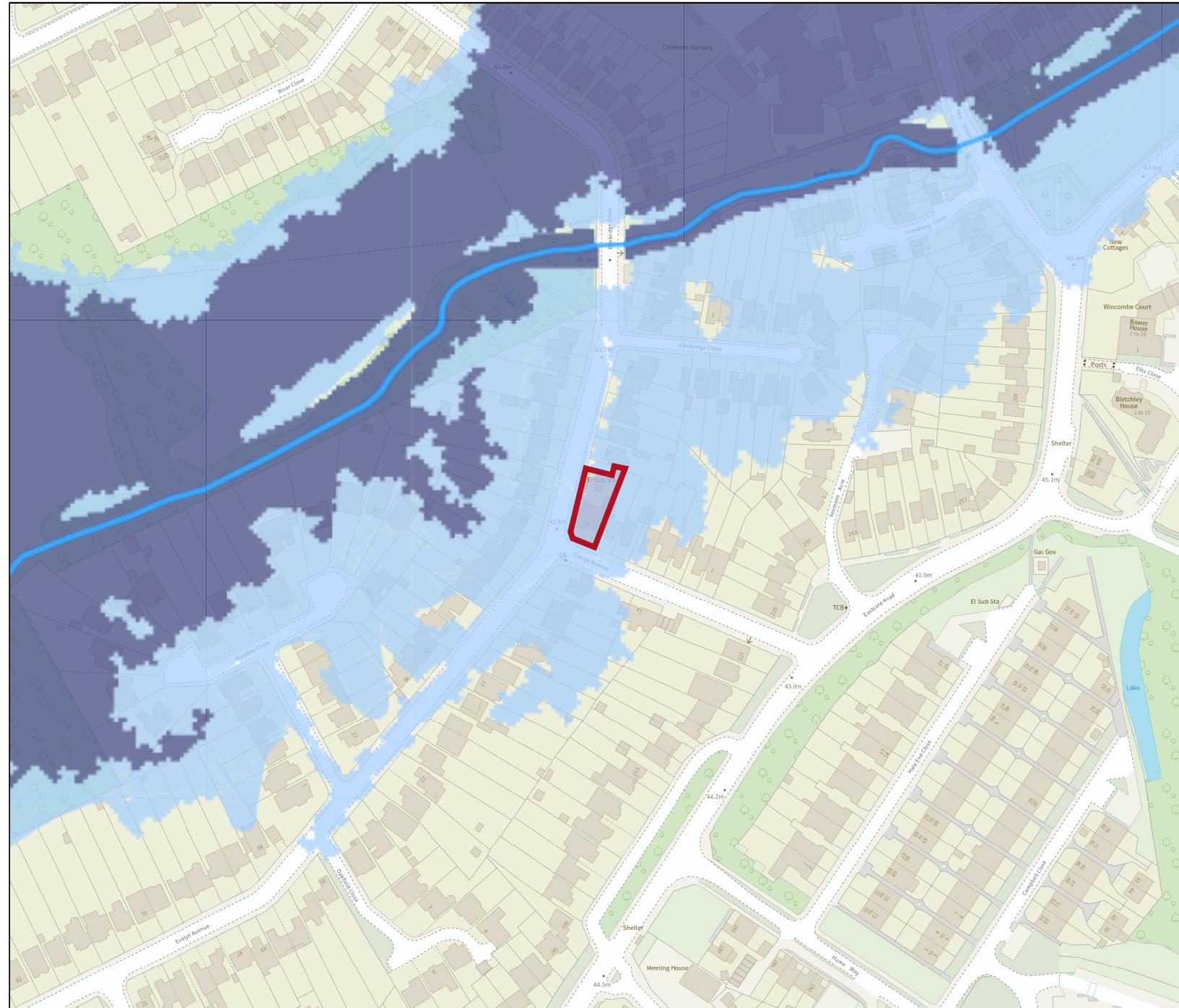
Scale  
**1:2500**

Created  
**22 Jan 2024 8:20**

- Selected area
- Flood zone 3
- Flood zone 2
- Flood zone 1
- Flood defence
- Main river
- Water storage area

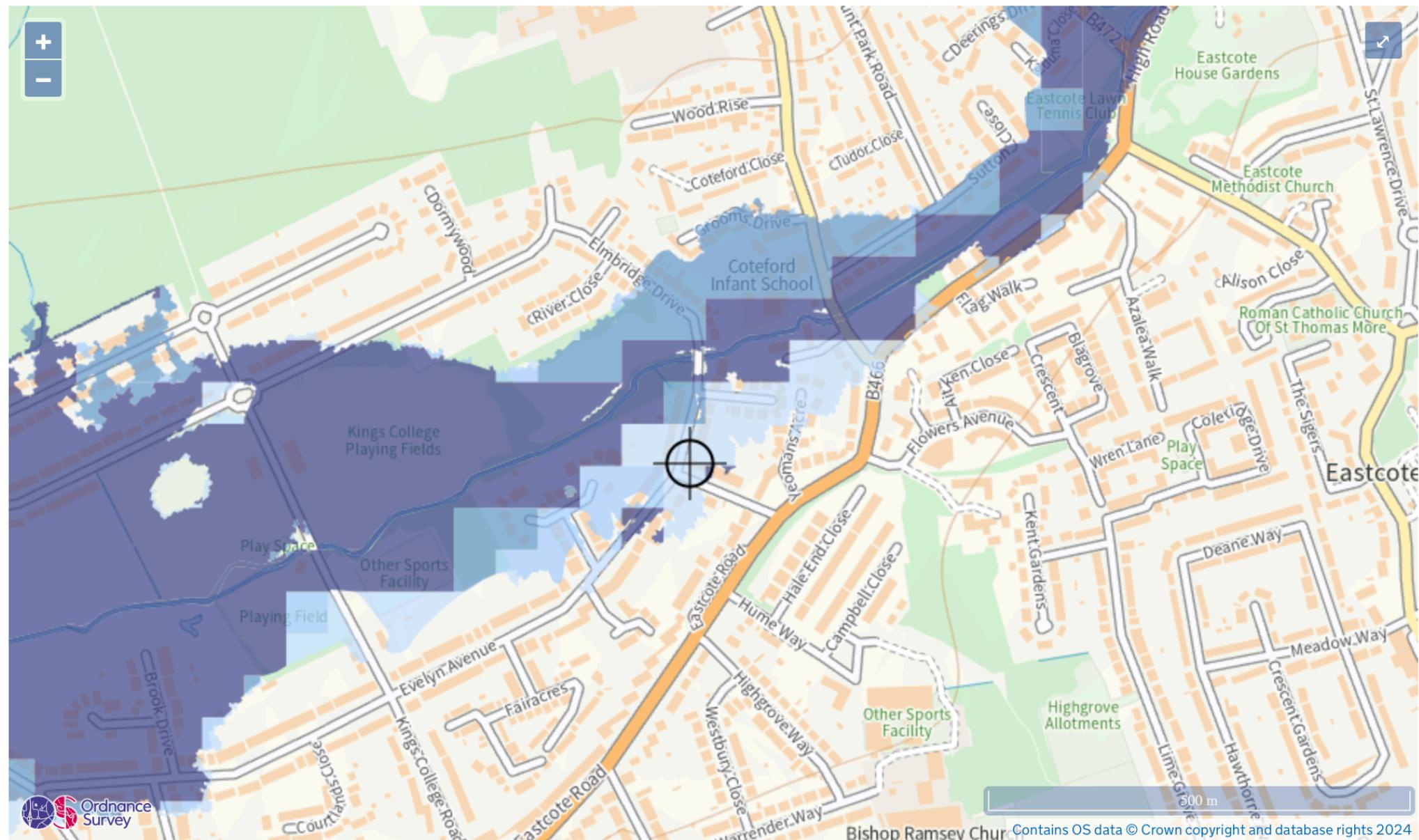
0 20 40 60m

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Extent of flooding

HA4 8AS



Extent of flooding from rivers or the sea

High Medium Low Very low Location you selected