



**131 PARK AVENUE  
RUISLIP  
HA4 7UN**

**FLOOD RISK ASSESSMENT**  
In support of Householder Planning Application

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**Site Address:**

131 Park Avenue  
Ruislip  
HA4 7UN

**Description of Development**

Proposed single storey side return infill extension and proposed first floor rear extension.

**Assessment of flood Risk**

The site address is in flood zone 3 – an area with a high probability of flooding that benefits from flood defenses.

Rivers and the sea

High risk. There is a chance of flooding greater than 3.3% each year.

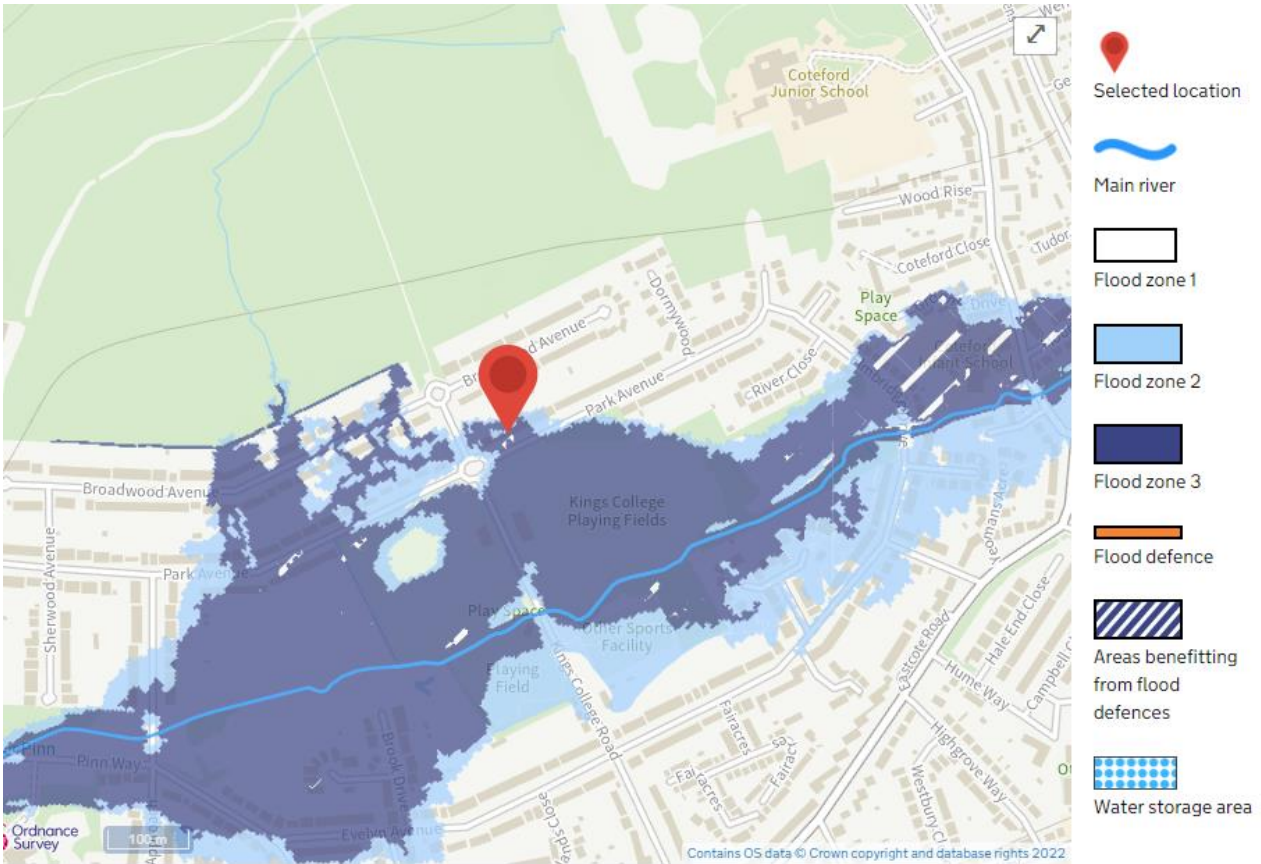
Surface Water

Medium risk. The development should implement SUDs so that the surface water from rainfall can drain back into the water table and not contribute to surface water (flash) flooding.

The following mapping information has been provided by The Environment Agency.

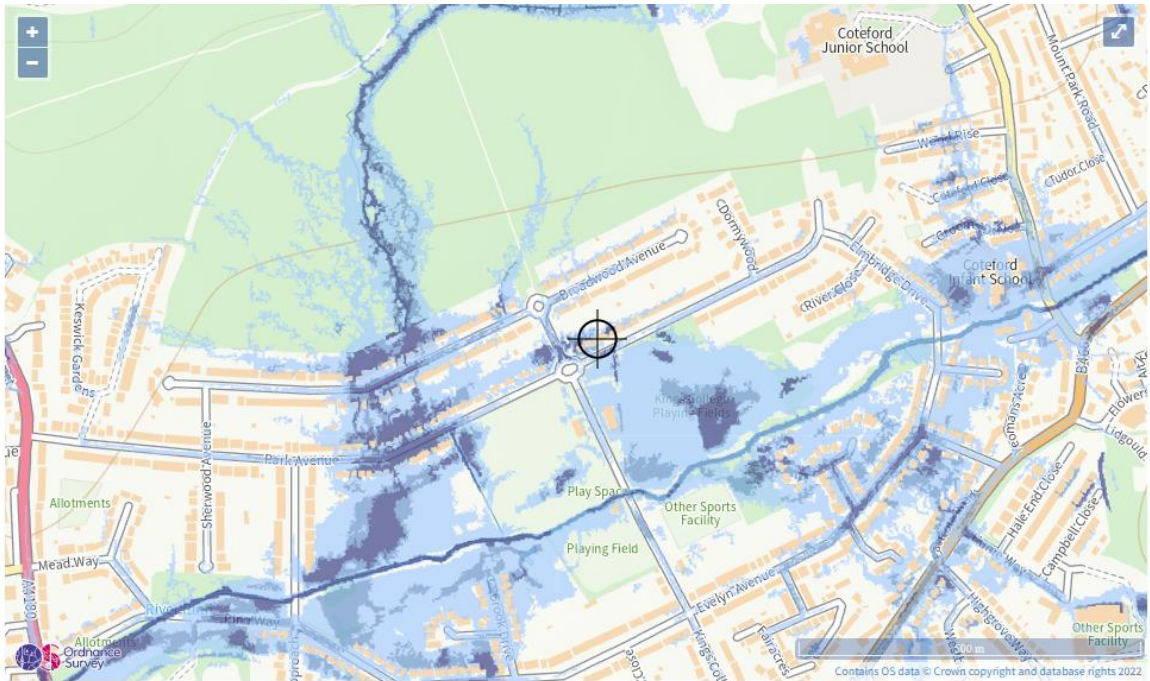
**Flood Risk Mapping**  
Source: Environment Agency

As the map below confirms, the site address is within Flood Zone 3.



**Surface Water Mapping**  
Source: Environment Agency

As the map below confirms, the site address has medium to low risk of surface water flooding



Extent of flooding from surface water

● High ● Medium ● Low ○ Very low ⊕ Location you selected



## Details of Flood Resilience and Resistance Plans

The proposed internal ground floor level of the extension will be set no lower than the existing ground floor level.

The proposed side return infill extension will be replacing an existing non permeable patio area (please refer to photographs below) and as such will not worsen the situation.



**Photo A & B**

**Showing impermeable hard landscaped area which would be replaced by proposed ground floor side return extension**

The proposals would therefore not increase the amount of impermeable surface as the existing ground is currently sealed by concrete and paving.

The proposed first floor extension is above the ground floor extension for which permission has already been granted under PD. This would therefore not contribute to any additional surface water run off.

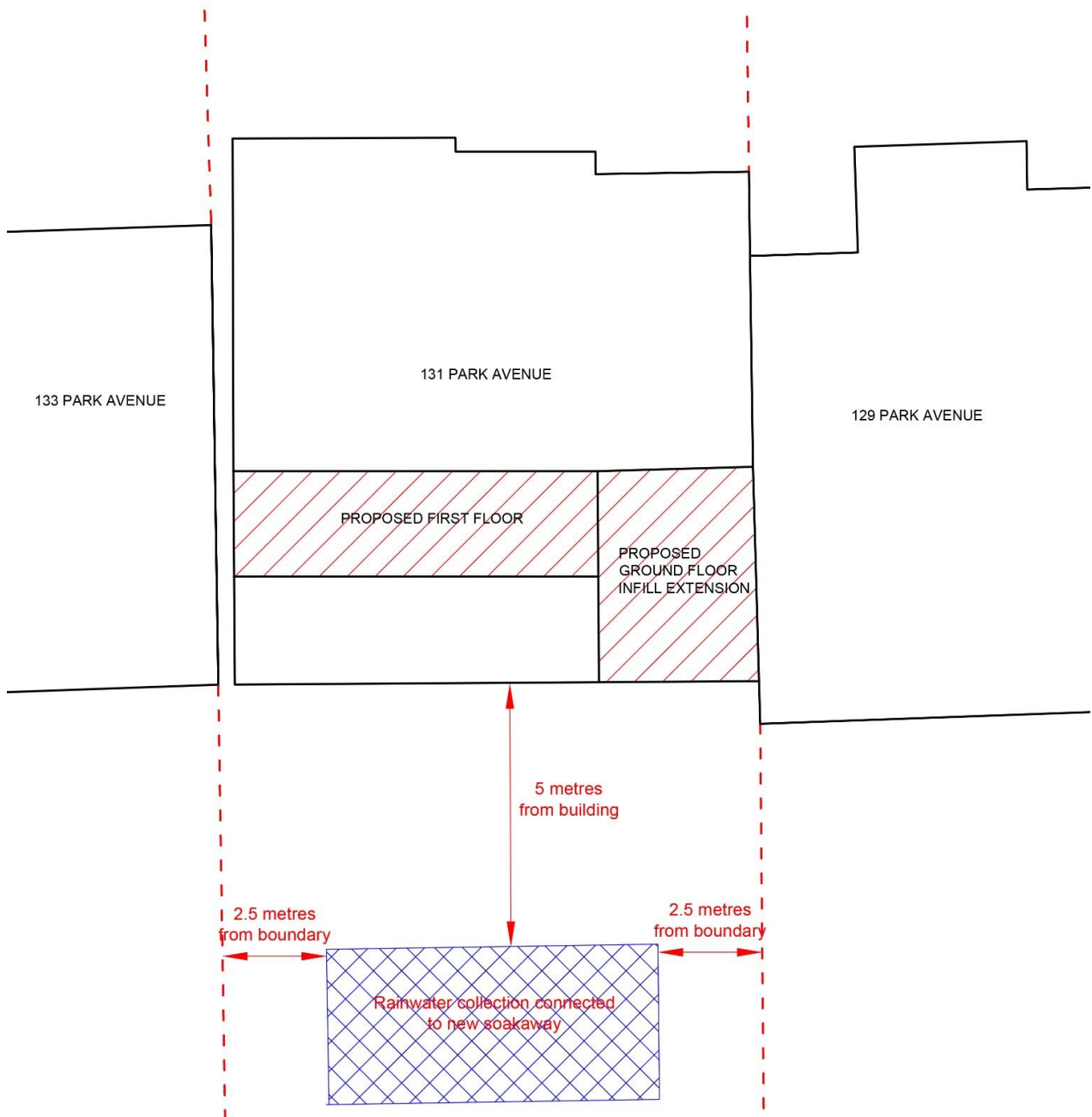
To further mitigate this, we will be implementing SUDs within the proposals as detailed in the following pages.



## SUDS – SOAKAWAY DESIGN

- Takes water away from sewers and reduces the risk of flooding;
- Infiltration into the ground is a natural process, which recharges the underlying aquifers;

New rainwater goods to be new 110mm UPVC half round gutters taken and connected into 68mm dia UPVC downpipes. Rainwater taken to new soakaway, situated a min distance of 5.0m away from any building, via 110mm dia UPVC pipes surrounded in 150mm granular fill. Soakaway to be min of 1 cubic metre capacity (or to depth to Local Authorities approval) with suitable granular fill and with geotextile surround to prevent migration of fines. If necessary carry out a porosity test to determine design and depth of soakaway.



## SUDS – PERMEABLE PAVING

- Allows infiltration into the ground is a natural process, which recharges the underlying aquifers;
- Paving slopes gently towards the turfed areas so that any excess water runs onto the grassed areas for natural infiltration back into the ground



**HARD LANDSCAPING DIAGRAM**

Any additional hard landscaping will be permeable, allowing rainwater to infiltrate naturally back in to the ground, utilising one of the methods below.

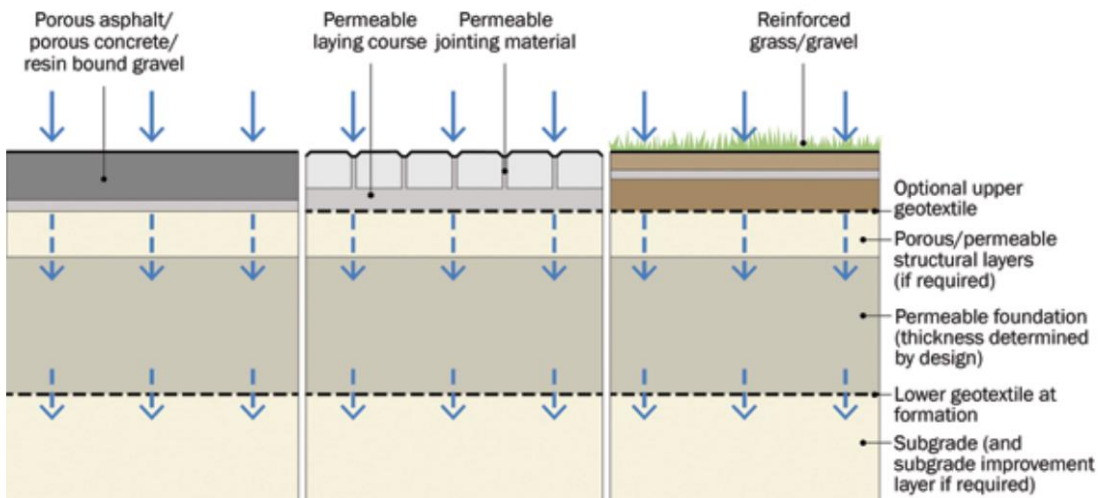


Figure 20.12 Pervious pavement system types: Type A – total infiltration



## **FLOOD RISK ASSESSMENT**

### **APPENDIX**

- A. Environment Agency Form – Householder and other Minor Extensions in Flood Zones 2 and 3

## Householder and other minor extensions in Flood Zones 2 and 3

**This guidance is for domestic extensions; and non-domestic extensions where the additional footprint created by the development does not exceed 250 square metres. It should NOT be applied if an additional dwelling is being created.**

We recommend that:

### Planning Authorities

- 1) Refer the applicant to the standing advice pages on the Environment Agency website or provide them with a copy of this page for them to include as part of the planning application submission.
- 2) Check the planning application to ensure that one or other of the mitigation measures from the table below has been incorporated.

**Applicants** complete the table below and include it with the planning application submission. The table, together with the supporting evidence, will form the Flood Risk Assessment (FRA) and will act as an assurance to the Local Planning Authority that flood risk issues have been adequately addressed. Print<sup>1</sup> the completed form to a PDF writer if submitting this form electronically.

Applicant to choose one or other of the flood mitigation measures below	Applicant to provide the LPA with the supporting information detailed below as part of their FRA	Applicant to indicate their choice in the box below. Enter 'yes' or 'no'
Either ;  Floor levels within the proposed development will be set no lower than existing levels AND, flood proofing of the proposed development has been incorporated where appropriate.	Details of any flood proofing / resilience and resistance techniques, to be included in accordance with ' <i>Improving the flood performance of new dwellings</i> ' CLG (2007)	YES
Or;  Floor levels within the extension will be set 300mm above the known or modelled 1 in 100 annual probability river flood (1%) or 1 in 200 annual probability sea flood (0.5%) in any year. This flood level is the extent of the Flood Zones	This must be demonstrated by a plan that shows finished floor levels relative to the known or modelled flood level. All levels should be stated in relation to Ordnance Datum <sup>1</sup>	NO

### Subterranean/basement extensions

Due to the risk of rapid inundation by floodwater; basements should be avoided in areas at risk of flooding. The LPA may hold additional guidance for basement extensions.

Self-contained basement dwellings are 'Highly Vulnerable' development and should not be permitted in flood zone 3. We are fundamentally opposed to these developments.

**Continued...**

<sup>1</sup> Ordnance Datum or the abbreviation 'OD' is the mean level of the sea at Newlyn in Cornwall from which heights above sea level are taken. The contour lines on Ordnance Survey maps measure heights above OD for example, though these are not accurate enough for a flood risk assessment..

## Cumulative impact of minor extensions and the removal of Permitted Development rights.

PPS25 paragraph D16 highlights the potential for the cumulative impact of minor extensions to have a significant effect on flood risk. Where local knowledge (Strategic Flood Risk Assessment held by the LPA/information provided by the parish council) suggests this is the case the guidance contained in FRA guidance note 2 should be applied<sup>2</sup>. FRA guidance note 2 can also be applied where permitted development rights have been removed for flood risk reasons. The Environment Agency does not usually comment on minor development in this category.

## Permeable paving and changes to permitted development rights for householders

On the 1<sup>st</sup> October 2008 the General Permitted Development Order (GPDO) in England was amended by the Government (Statutory Instrument 2008 No. 2362).

One of the changes introduced by the GPDO amendment is the removal of permitted development rights for householders wishing to install hard surfacing in front gardens which exceeds 5 square metres (i.e. 1m x 5 m) without making provision to ensure permeability. This means that use of traditional materials, such as impermeable concrete, where there is no facility in place to ensure permeability, requires an application for planning permission.

In order to help and advise householders of the options for achieving permeability and meeting the condition for permitted development status the Department for Communities and Local Government (CLG) has produced guidance on permeable paving which can be found on the following link <http://www.communities.gov.uk/publications/planningandbuilding/pavingfrontgardens>.

The Environment Agency support this change to the GPDO as it is in line with the recommendations of the Pitt Report regarding the need to better tackle the impact of surface water flooding. However, Local Planning Authorities should determine these applications in accordance with the CLG guidance **without** consulting the Environment Agency.

**End of comment**