Residential Building
& Consultancy Ltd

Flood Risk Assessment

Development at

74 Swakeleys Road Ickenham UB10 8BB

On behalf of
Sutanu Roy

Date: 27/01/2026

1.0 INTRODUCTION

1.1 Residential Building & Consultancy LTD has been instructed by KDA Designs to prepare a site specific

Flood Risk Assessment (FRA) for the development being carried out to 74 Swakeleys Road Ickenham, UB10 8BB

1.2 Proposed Crossover to front of property to allow vehicle 9(car) access to front garden from Swakeleys Road.

1.3 The Environment Agency (EA) mapping for Flood Risk, shows the site to be located within Flood
Zone 2/3.

- **Flood Zone 2** = *Medium probability* of river/sea flooding: about **0.1 %–1 % annual probability** of flooding from rivers, and **0.1 %–0.5 % from the sea**. This is often shown as light blue on official maps.

- **Flood Zone 3** = *High probability* of flooding: **≥1 % annual probability from rivers** or **≥0.5 % from the sea** (dark blue)

1.4 According to the EA Long Term Flood Risk map (RoFSW), the rear of the site is shown to encompass areas at high and medium risk from surface water flooding. High risk means that this area has a chance of flooding of greater than 3.3%. Medium risk means that this area has a chance of flooding of between 1 and 3.3% each year. Flooding from surface water is difficult to predict as rainfall location and volume are difficult to forecast. In addition, local features can greatly affect the chance and severity of flooding. The surface water flooding appears to be part of an overland flow.

1.5 According to available data the site is at low risk of groundwater, sewer and reservoir flooding.

1.6 It is proposed that a soakaway is to be installed together with a drainage channel in the front garden as a way to provide SuDS benefits and reduce the runoff from the increase of built area.

2.0 POLICY COMPLIANCE

2.1 The purpose of this assessment is to demonstrate that the development proposal outlined above
can be satisfactorily accommodated without worsening flood risk for the area and without placing
the development itself at risk of flooding, as per the:

• National Planning Policy Framework

• Strategic Flood Risk Assessment

• The London Plan

3.0 SITE LOCATION

3.1 The proposed development is being carried out to 74 Swakeleys Road Ickenham, UB10 8BB

4.0 SEQUENTIAL TEST/EXCEPTION TEST

4.1 Under the NPPF, all new planning applications should undergo a Sequential Test. This test should be implemented by local planning authorities with a view to locating particularly vulnerable new developments (e.g. residential, hospitals, mobile homes etc.) outside of the floodplain.

4.2 The Environment Agency (EA) mapping for Flood Risk, shows the site located within Flood Zone 1(low risk of fluvial or tidal flooding). Areas within Flood Zone 2/3 have been shown to be at less than 0.1% annual probability of flooding from rivers or seas.

4.3 Following the published Flood Risk and Coastal Change Planning Policy Guidance (PPG) Table 2 and NPPF guidelines, the proposed development is classed as ‘More vulnerable’ due to being a residential development.

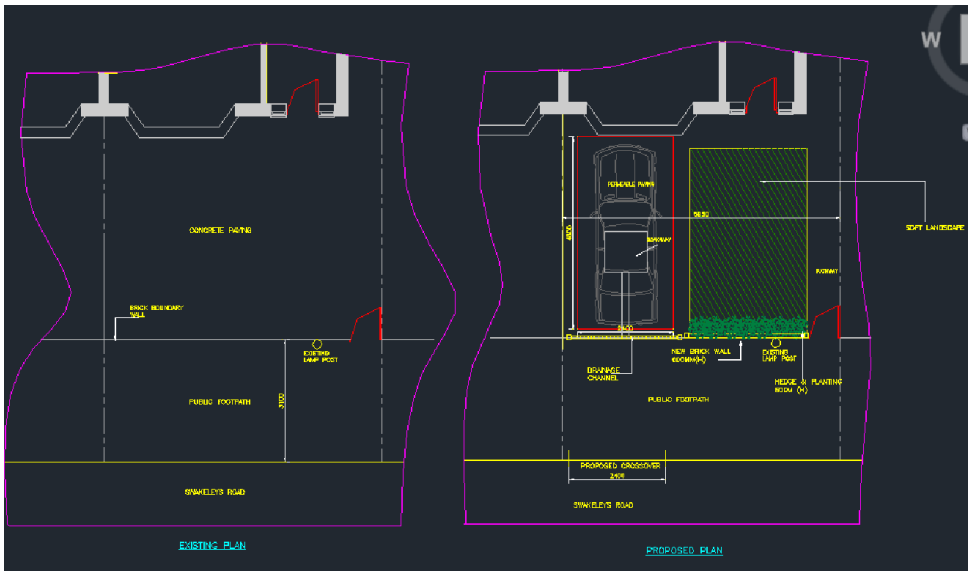
5.0 CLIMATE CHANGE ALLOWANCES

5.1 Making an allowance for climate change in the design of surface water drainage systems will help to minimise vulnerability and provide resilience to flooding and coastal change in the future.
Climate Change allowances vary across the UK subject to catchment conditions and are based on climate change projections and different scenarios of carbon dioxide (CO2) emissions to the atmosphere.

5.2 Climate change allowances were recently updated by the EA and the climate change allowances are now defined by River Catchment peak rainfall allowances. The data published on the DEFRA database shows the site located within the London Management Catchment and for residential development (lifespan 100yrs), in accordance with NPPF guidance, an upper end allowance of 40%
should be applied to rainfall events as the climate change allowance within this region.

5.3 The data published on the DEFRA database shows the site located within the London Management Catchment for peak river flow and, in accordance with NPPF guidance for residential development (lifespan 100yrs, classed as 'more vulnerable') a central allowance of 17% should be applied to river flow events as the river flow climate change allowance within this region. However, as the site is located within Flood zone 2/3 the climate change allowance for river flow is unnecessary.
Flood Risk Vulnerability Classification Essential Infrastructure Water Compatible Highly Vulnerable

<u>Proposal</u>



6.0 SOURCES OF FLOODING

6.1 Tidal and Fluvial

Flood sources, including nearby River Pinn (which flows near Swakeleys Road and is monitored for flood levels by Environment Agency stations)

6.1.1 The Environment Agency (EA) mapping for Flood Risk, shows the site to be located within Flood Zone 2/3. Flood Zone 2/3 is an area with less than 0.1% chance of flooding from rivers (fluvial flooding) and/or from the sea (tidal flooding) in any given year

The development is at risk of flooding from Ruislip Lido reservoir which is owned by the London Borough of Hillingdon.

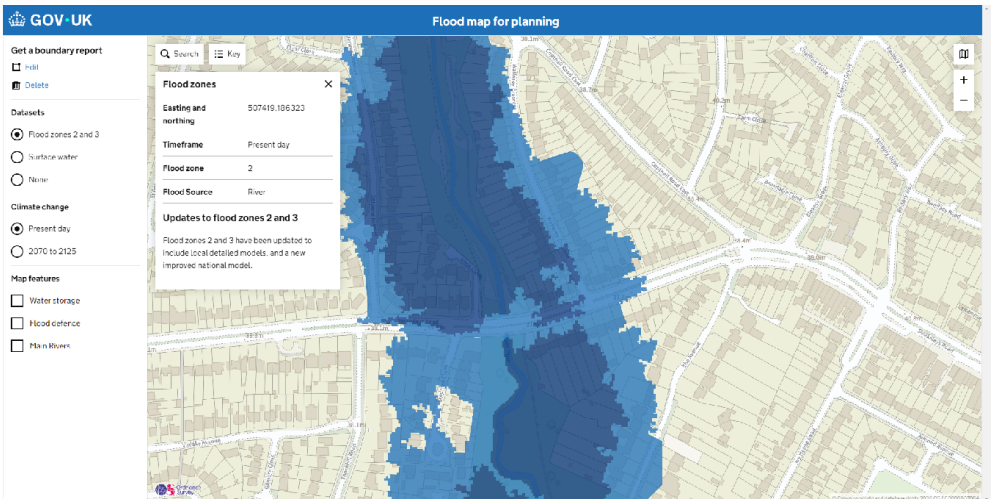
Reservoir flooding is extremely unlikely to happen. There has been no loss of life in the UK from reservoir flooding since 1925. All large reservoirs must be inspected and supervised by reservoir panel engineers. As the enforcement authority for the Reservoirs Act 1975 in England, the Environment Agency ensures that reservoirs are inspected regularly, and essential safety work is carried out.

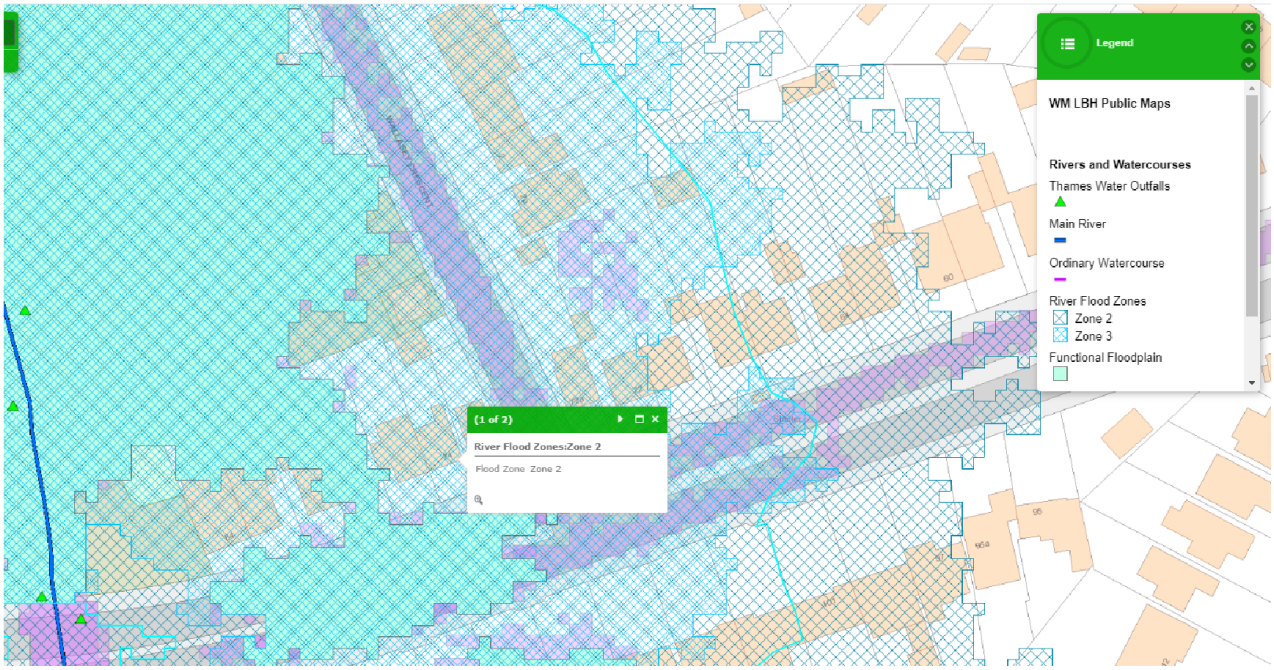
6.2.1 According to the EA Long Term Flood Risk map (RoFSW), the rear of the site is shown to encompass areas at high and medium risk from surface water flooding. High risk means that this area has a chance of flooding of greater than 3.3%. Medium risk means that this area has a chance of flooding of between 1% and 3.3% each year. Flooding from surface water is difficult to predict as rainfall location and volume are difficult to forecast. In addition, local features can greatly affect the chance and severity of flooding.

6.2.2 This surface water flooding appears to be part of an overland flow pathway

6.2.3 Current guidance outlined in the NPPF states that the 'design flood' as:
This is a flood event of a given annual flood probability, which is generally taken as:
• river flooding likely to occur with a 1% annual probability (a 1 in 100 chance each year); or
• tidal flooding with a 0.5% annual probability (1 in 200 chance each year); or
• surface water flooding likely to occur with a 1% annual probability (a 1 in 100 chance each year) with a 1% annual probability (a 1 in 100 chance each year),

6.2.4 As the site is located in an area potentially at risk from stormwater flooding MCEC have downloaded the EA Risk of Surface Water dataset to analyse the data in more detail in relation to the proposed site works.





Geology
Figures 9 and 10 present information from the British Geological Survey

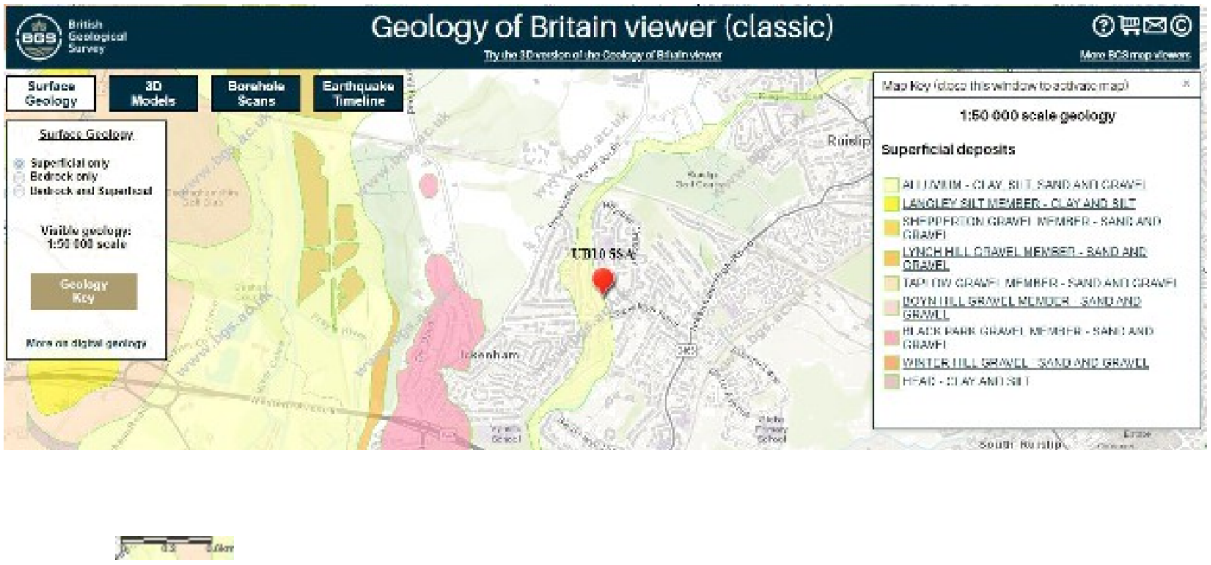


Figure 9 – Superficial Geology of the development.

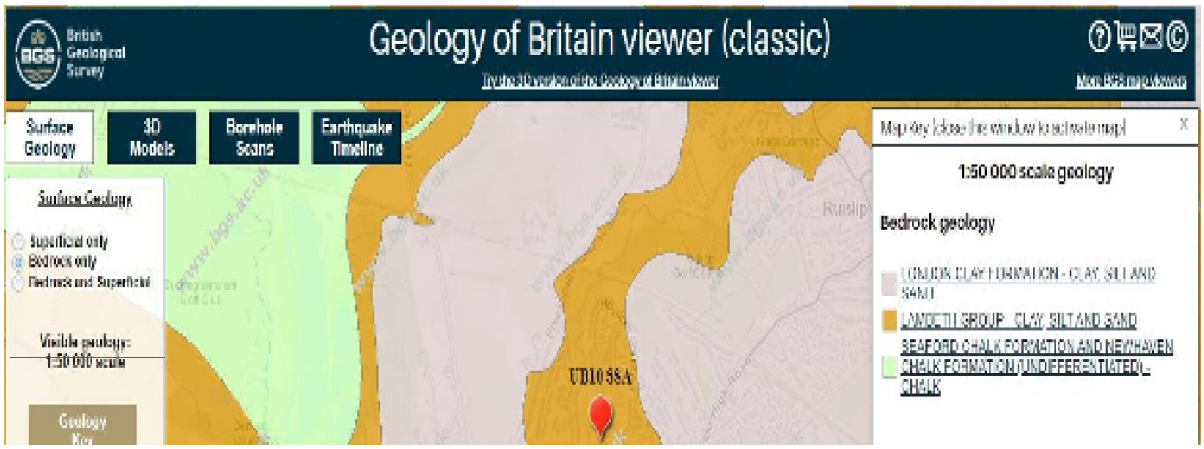


Figure 10 – Bedrock geology of the development.

The superficial deposit records at the development site are described as Alluvium - Clay, Silk Sand and Gravel. The superficial deposits formed up to 2 million years ago in the Quaternary Period. The local environment was previously dominated by rivers (U).

With regards to the bedrock, the site is underlain by the Lambeth Group - Clay, Silt and Sand. The sedimentary bedrock farmed approximately 48 to 59 million years ago in the Palaeogene Period. The local environment was previously dominated by swamps, estuaries and deltas.

7.0 CONCLUSION

(Sequential Test Statement – Hillingdon SFRA (Flood Zone 3)

In accordance with the London Borough of Hillingdon Strategic Flood Risk Assessment and the National Planning Policy Framework, the Sequential Test is **not required** for this proposal as it constitutes **minor development**. The vehicle crossover must be located at the point of existing access to the public highway and therefore **no reasonably available alternative sites** exist in areas of lower flood risk.

The proposed vehicle crossover constitutes **minor development** and is appropriate in **Flood Zone 3**, in line with the National Planning Policy Framework (NPPF) and Planning Practice Guidance (PPG), which confirm that such development is acceptable where it does not increase flood risk.

The crossover will be constructed at **existing ground levels** and will not result in any obstruction to flood flows, reduction in floodplain storage, or displacement of floodwater. The works will not interfere with any flood defences, watercourses, or overland flow routes during flood events.

Surface water runoff will be managed using **permeable or positively draining materials**, ensuring that there is **no increase in runoff rate or volume** compared to the existing condition. The proposal will therefore not exacerbate fluvial or surface water flood risk either on-site or to third-party land.

As the development does not introduce habitable space, does not intensify vulnerability, and maintains safe flood behaviour during extreme events, the proposal satisfies flood risk policy requirements. The vehicle crossover is considered **flood-neutral**, safe, and acceptable within Flood Zone 3, and **no further flood mitigation is necessary**.