Flood Risk Assessment

## RE: Planning application- 24 Cherwell Way, Ruislip, HA4 7BE

This flood risk assessment has been produced in support of a planning application for the proposal of a single storey rear extension.

Development site & location: The site is located at 24 Cherwell Way, Ruislip – which is located in Hillingdon, within a predominantly residential area and is occupied mainly by detached 2 storey dwellings.

The are does not have any major water courses but there are a number of ditches around the site.

The site does not lie within a flood zone but in an area that can be at risk from surface water flooding. In accordance with Hillingdon Borough Councils Core Strategy, it is acknowledged that the extensions will not increase the flood risk as it does not fall within the flood zone.

The existing ground surface unto which the extension will be built consists of a non permeable patio and hardstanding.

As defined by the NPPF and PPG. 2014, the development is classed as a minor development due to the scale of the proposed works (domestic extension under 250 sqm). Accordingly, consultation with the Environment Agency has not taken place and this report is prepared in line the Environment Agency general advice and guidance notes, whilst also taking into account the requirement set out by Elmbridge Borough Council.

Development Proposals: As denoted in submitted drawings, the application seeks to provide a single storey rear extension.

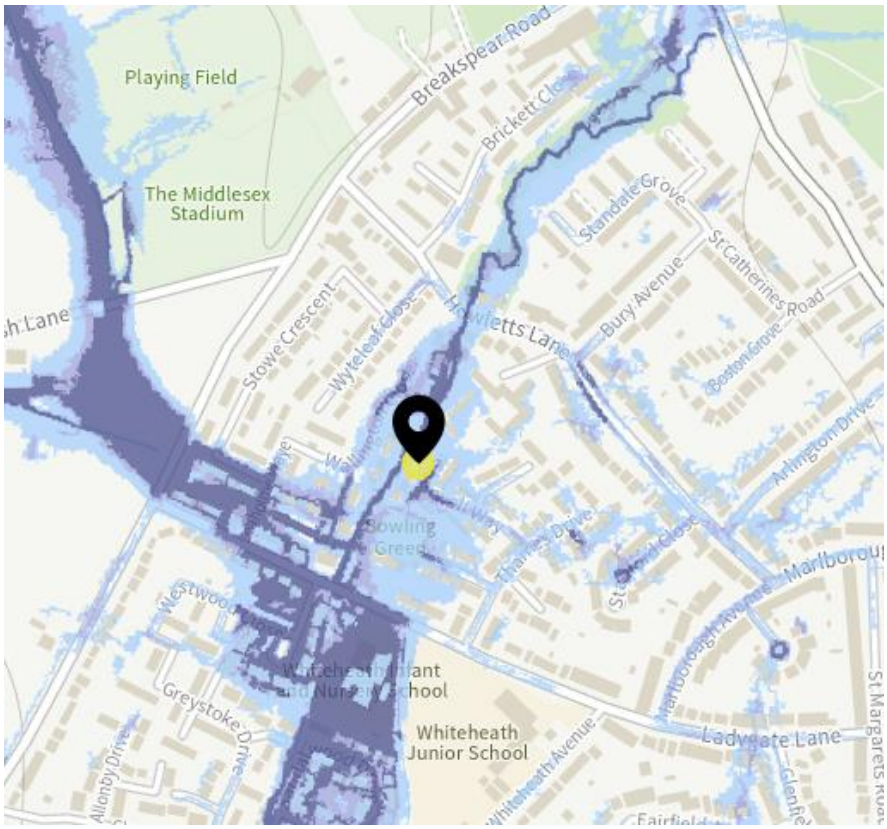
Sequential and exception tests: Due to the location and the scale of development proposed (less than 250 sqm), it is not necessary to apply the Sequential Test and therefore it should be acknowledged that as a matter of principle, such a development is acceptable and would not result in a material increase in flood risk, according with NPPF paragraph 104.

The proposals have an expected lifespan of 100 years.

The finished floor level of the proposal will set no lower than existing finished floor level of the property.

While the potential for Sustainable Drainage Systems has been assessed, the small size of the development prevents most SuDS from being used. However the use of rainwater harvesting systems, such as water butts will be used to provide a minor reduction in surface water runoff rates. To further improve this a soakaway will be placed in the rear garden no closer than 5m from the rear wall of the extension. all new areas of patio will be done using permeable materials.

Extent of flooding from surface water map




Infrastructure flooding failure: The figure below shows the Reservoir flood map which was downloaded from the Environment Agency's website.

Flooding from climate change: Despite predicted increases in rainfall of 10% by 2055 and 30% by 2115, it is considered that the effects of climate change will not be significant to run off flows to the application property.

Flood mitigation: In accordance with Environment Agency's standing guidance, suitable for domestic extensions with an additional footprint of less than 250m2, the floor levels within the extension will not be set any lower than the current floor levels in the existing dwelling

| | | Sources of Information | Summary |
|---|---|---|---|
| 1.Site Description | | | |
| Site Address | 24 Cherwell Way | - | - |
| Site description | Existing residential semi detached house | - | - |
| Location Plan | See Appendix 1 | OS Mapping | |
| Site Plan | See Appendix 2 | OS Mapping/site survey | |
| | | Sources of Information | Summary |
| 2.Proposed development | | | |
| Current Use | Residential | - | - |
| Proposed Use | Residential no increase in numbers of people on site | - | - |
| Vulnerability Classification | SPD Appendix 1 SPD Table 7 | - | - |

| 3. Assessing floor risk | | | |
|---|---|---|---|
| Topography | No major changes to topography will occur due to the development | SPD Section 2.3 SFRA Appendix B, Figure B1 Site Survey | - |
| Landscape and Vegetation | Area is already paved over | SPD Section 2.3 | - |
| Watercourses | | SPD Section 2.3 SFRA Appendix C Environment Agency Products 1-7. New hydraulic model. | - |
| Flooding from land | | SPD Section 2.3 SFRA Appendix D. | - |
| Flooding from groundwater | See image above | SPD Section 2.3 SFRA Appendix B, | - |
| Flooding from sewers | Identify any historic flooding that has affected the site. | SPD Section 2.3 SFRA Appendix B Figures B7 and B8. Where appropriate an asset | - |

| | | | |
|---|---|---|---|
| | | Location survey can be provided by Thames Water Utilities Ltd | |
| Reservoirs, canals and other artificial sources | Not applicable | SPD Section 2.3 Risk of Flooding from Reservoirs mapping (EA website). | - |
| Sequential Test | Not Required | SPD Section 2.4 Land Availability Assessment | - |
| Exception Test | Not Required | SPD Section 2.4 Refer to Elmbridge SA Scoping Report sustainability objectives. SPD Section 2.5 | - |

| 4. Managing and mitigating flood risk | | | |
|---|---|---|---|
| Finished Floor Levels | The Proposed floor levels of the extension will be the same level as the existing house which is 200mm higher the ground level at the front. | SPD Section 2.5 | - |
| Flood resistance | Flood protection will not be needed for the extension as it falls outside of the flood zone. | SPD Section 2.5 | - |
| Flood Resilience | Not Applicable | SPD Section 2.5 | - |
| Safe access and Egress | Not Applicable | SPD Section 2.5 | - |
| Floodplain compensation storage | Not Applicable | SPD Section 2.5 | - |
| Flood Voids | Not Applicable | SPD Section 2.5 | - |
| Flow Routing | Not Applicable | SPD Section 2.5 | |
| Riverside development buffer zone | Not Applicable | SPD Section 2.5 | - |
| Surface water management | The surface water drainage will discharge into the existing drainage as per the existing extensions | SPD Section 2.5 | - |
| Flood warning and Evacuation Plan | Not Applicable | SPD Section 2.5 | - |

Appendix 1

Location Plan

Appendix 2

Site Plan