

Flood Risk Assessment

RE: Planning application- 4 Link Road, Datchet, Slough, SL3 9LB

This flood risk assessment has been produced in support of a planning application for the proposal of a single storey rear, double storey side and a first floor front extension.

Development site & location: The site is located at 4 Link Road, Datchet – which is located in Berkshire, within a predominantly residential area and is occupied mainly by semi detached 2 storey dwellings.

The nearest main watercourse is The River Thames which is located within 400m to the West of the site and the Queen Mary Reservoir within 400m to the East of the site.

The property lies in flood zone 3. In accordance with the Royal Borough of Windsor and Maidenhead Councils Core Strategy, it is acknowledged that the extensions will increase the flood risk but measures will be put in place to limit this impact as described below.

The existing ground surface unto which the extension will be built consists of a non permeable patio and driveway, along with existing structures.

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 Royal Borough of Windsor and Maidenhead Council.

Development Proposals: As denoted in submitted drawings, the application seeks to provide a single storey rear, double storey side and a first floor front extension.

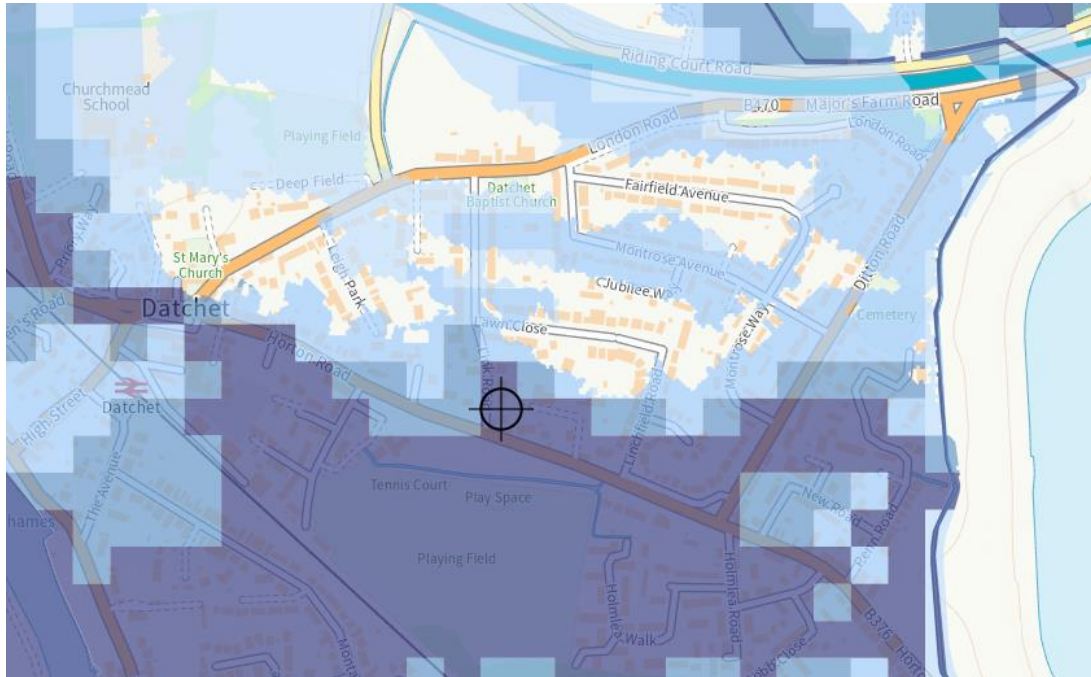
In accordance with the Environment Agency's Table 2: Flood Risk Vulnerability Classification, the proposed development is classed as more vulnerable due to the site falling in flood zone 3.

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.

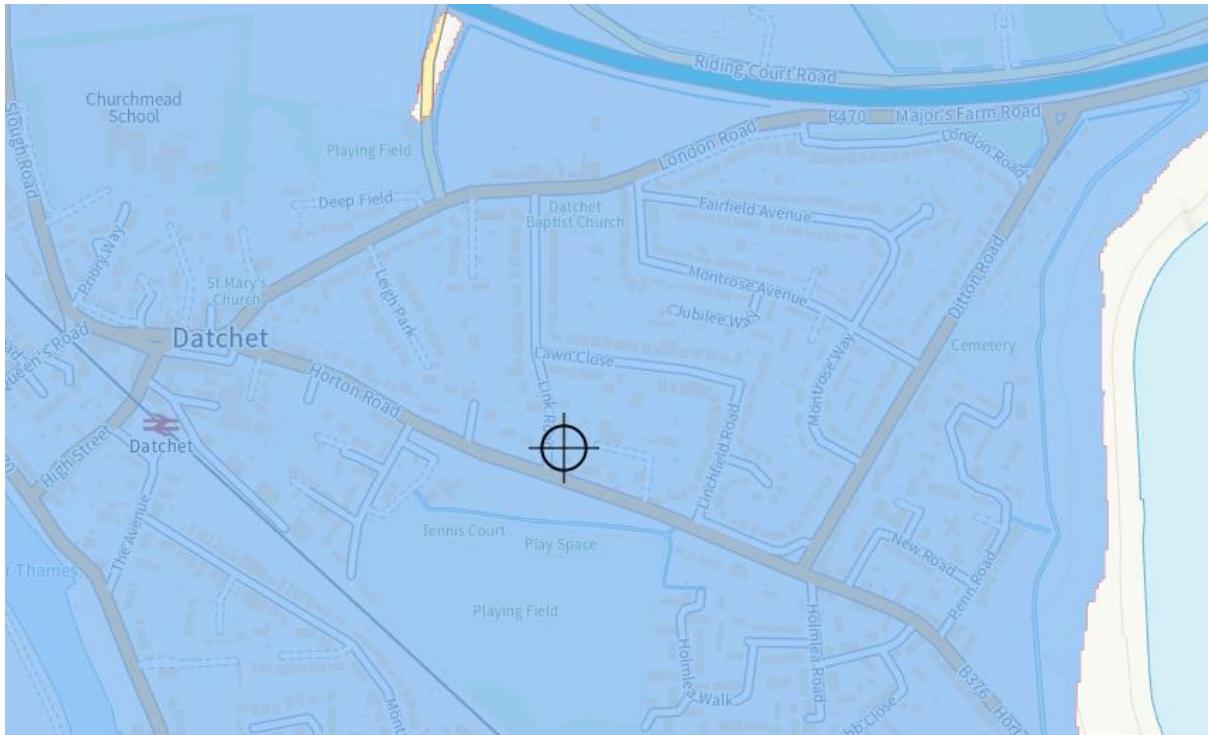
The proposals have an expected lifespan of 100 years.

The ground floor will be constructed in line with current guidance, as set out in the flood mitigation section of this assessment. The finished floor level of the proposal will set no lower than existing finished floor level of the property.

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. This suggests the site is not at a risk of flooding from Reservoirs. Although there is a risk in the area, it is extremely unlikely. There has been no loss of life since 1925 from reservoir flooding in the UK.



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.

Surface water drainage strategy: The extension of 4 Link Road will utilise the following Sustainable Urban Drainage (SUDs) design in accordance with the NPPF for planning applications drainage hierarchy as follows: 1. Store rainwater for later use; 2. Infiltration techniques; Assuming adhesion to these measures post development there will be no increase in surface water run-off from the site.

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. In addition, the following flood prevention measures will be undertaken;

- A ground bearing solid concrete floor slab is proposed to the ground floor of the new extension with an integral damp proof membrane and insulation installed on top of the flooring. As stated in the ODPM 'Preparing for Floods' guidance this is the preferred form of construction for extensions and new properties at risk of flooding. The DPM will be linked the DPC.
- Lime based plasters will be used for the ground floor walls which will dry out quicker than Gypsum based plasters, which are also more susceptible to water damage. If plasterboard is to be used, the first board above ground floor level will be laid horizontally.
- Closed cell insulation will be used within cavity walls.
- Joints between walls and external door frames and gaps around pipes penetrating the external walls are to be sealed with joints and cracks to existing brickwork are to be repaired / repointed.
- The topography of the site slopes from the front to the back. Measures will be taken to ensure that run-off surface water is discharged into soakaways, located at least 5m away from the property, by the installation of underground drainage and where necessary – drainage gullies.
- All sockets and switches will be fitted 800 mm, or greater, above floor level.
- Any hard standing areas outside the property will fall away from the entrance points, wherever possible, with a minimum 1:80 fall. Where this is not possible, linear drains will be introduced at the entrance points.

Home: 1. Move furniture and electrical items to safety at first floor level 2. Put sandbags in place around perimeter of the property. 3. Turn off electricity, water and gas supplies 4. Roll up carpets and rugs 5. Move sentimental and valuable items to safety 6. Put important documents in polythene bags and move to safety.

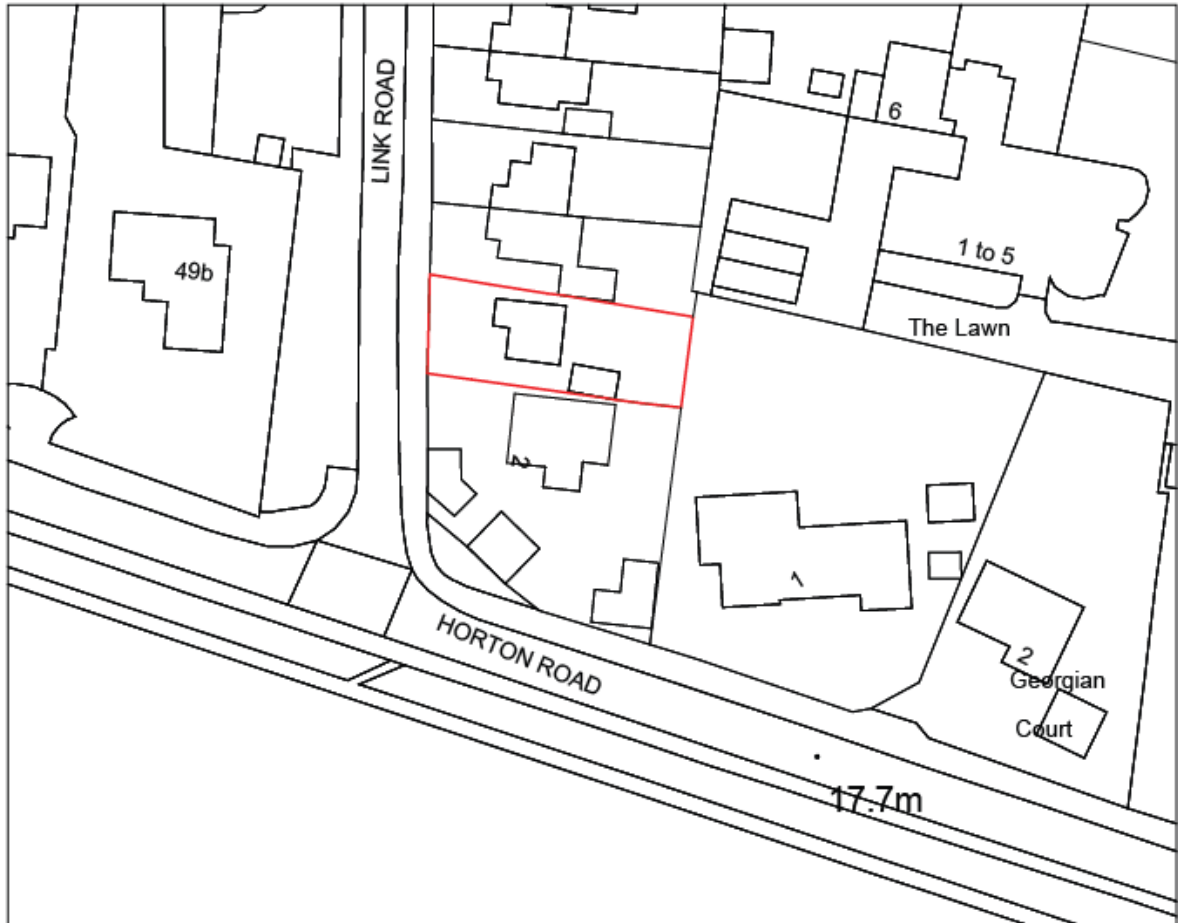
Garden and outside 1. Move car out of the flood risk area 2. Move any large or loose items or weigh them down

		Sources of Information	Summary
1.Site Description			
Site Address	4 Link Road, Datchet	-	-
Site description	Existing residential 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 and driveway	SPD Section 2.3	-
Watercourses	River Thames and Queen Mother Reservoir	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 RBWM 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 be provided by the use of resistant materials and construction methods. The exterior will be constructed using brick and block construction and the interior blockwork will be painted using a liquid dpm to create a 250mm high waterproof line. The slab will be constructed on concrete and the interior finish on dabs in case of flooding.	SPD Section 2.5	-
Flood Resilience	Details of flood resilience measures that have been incorporated into the design. Include design drawings where appropriate.	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 extension	SPD Section 2.5	-
Flood warning and Evacuation Plan	Not Applicable	SPD Section 2.5	-

Appendix 1
Location Plan



Appendix 2

Site Plan

