

17 Sudbrook Gardens, Richmond, TW10 7DD
Flood Risk assessment.

Key features of the proposed ground floor extensions to 17 Sudbrook Gardens.

1. The building is a domestic property. The extensions are in total 47.6sqm. This is under the Environment Agency's 250m² threshold for a "Minor Domestic Extension" in flood zone 2 and 3 as defined in their guidance / standing advice for completing a flood risk assessment (<https://www.gov.uk/guidance/flood-risk-and-coastal-change#minor-development-to-flood-risk>).
2. The site is 1.09km from the River Thames at the nearest point (south) as shown on the google maps image in figure 1 below. This is more than the distance of 20m of a main river stated as the level at which consultation with the Environment Agency is required.
3. The site is within Flood zone 1, as shown in figure 2 below.

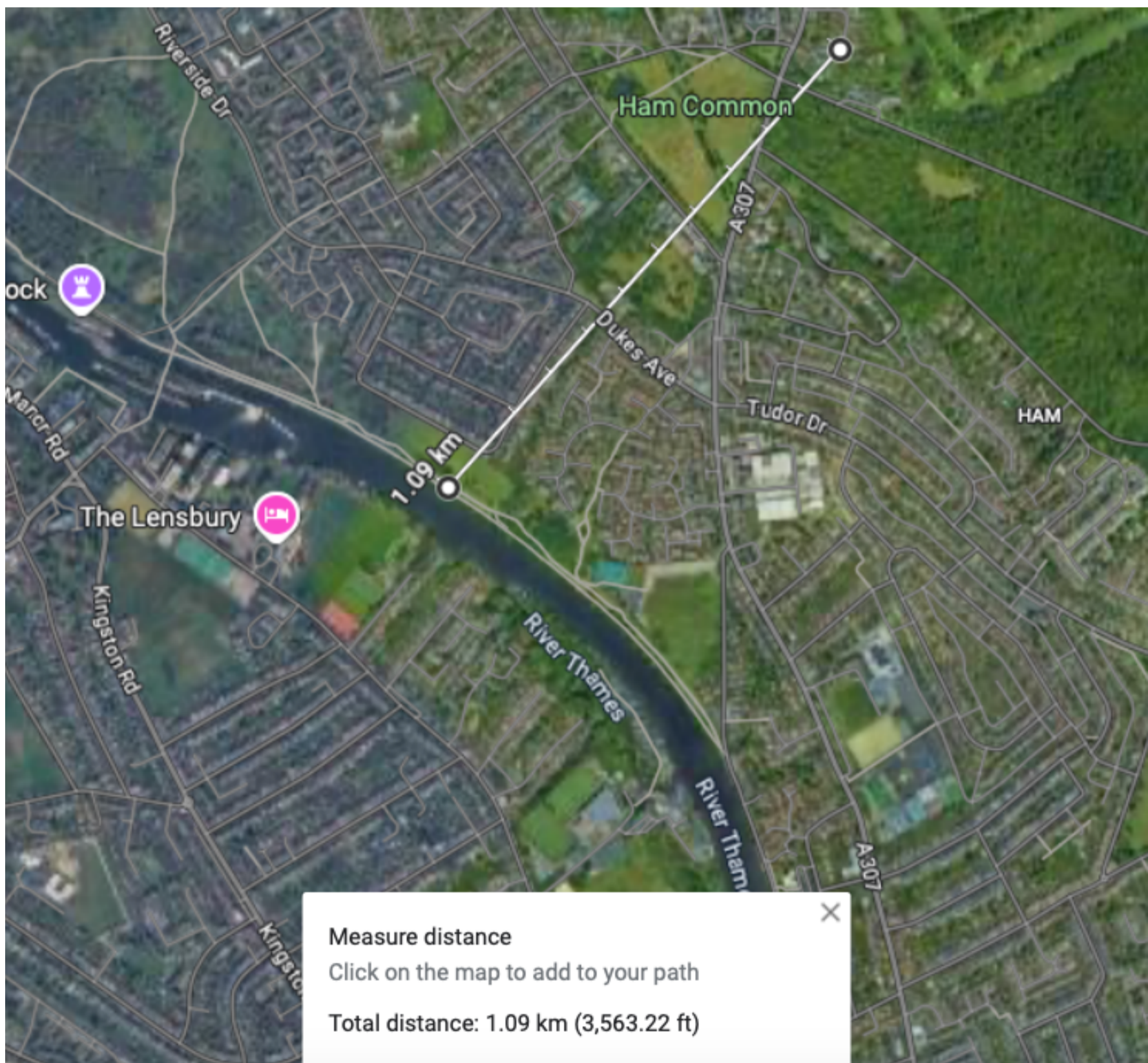
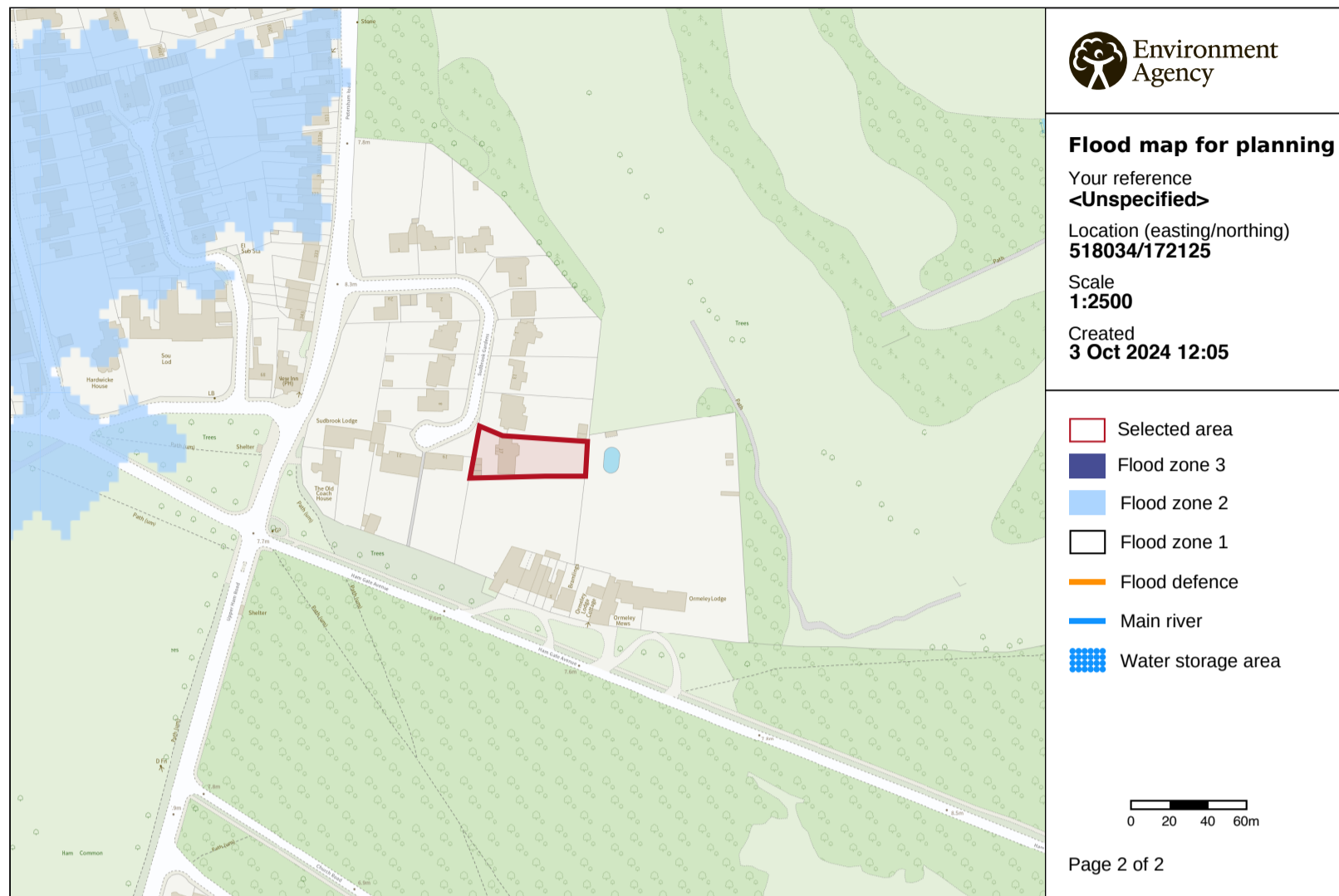


Figure 1 - Google maps extract distance 17 Sudbrook Gardens to the nearest point on the River Thames.



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Figure 2 - Environment Agency Flood map for planning 17 Sudbrook Gardens - Flood zone 1

The flood proofing / resilience measures proposed for the ground floor can be summarised as follows:

1. The ground floor of the new side / rear extension is to be built to a higher level than the existing floor level.
2. The floor construction will be either an in-situ concrete with a screed / finishes over. This type of construction will reduce the effect of any flood water penetration / damage.
3. Dense concrete blocks will be used for below ground external walls. This will reduce the amount of flood water penetration into / through external walls during flooding.
4. Wall accessories such as wall ties and screws will be stainless steel on ground floor to reduce corrosion.
5. Insulation in rigid walls will be rigid board, with impermeable foil facings that are resistant to the passage of water vapour.
6. The internal plasterboard wall linings will be designed with horizontally laid boards, which will reduce the amount of lining that would need to be replaced after a flood event.
7. Internal kitchen fittings will be fitted with a 150mm plinth to raise these up.
8. Internal walls will be painted and not papered.
9. Applicants to register with the Environment Agency for flood warning system.

Appendix A:

Environment Agency's guidance for Minor Extensions in Flood Zone 2 and 3.

Appendix B:

Environment Agency's Map of Flood Zone 1 with a highlighted route to an area outside the flood zone. This route will be taken by the residents in case of flooding to reach safety.

Appendix C:

Site Plan indicating a Soak-away.

Householder and other minor extensions in Flood Zones 2 and 3

Applications for planning permission should be accompanied by a completed form. An electronic version can be submitted by 'printing' it to a PDF writer.

This guidance is for domestic extensions and non-domestic extensions where the additional footprint created by the development does not exceed 250 sq. metres. It should NOT be applied if an additional dwelling is being created, e.g. a self contained annex.

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 (LPA) that flood risk issues have been adequately addressed.

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 buildings'</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 ¹	

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 opposed to these developments.

Continued...

¹ 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.

There is 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. 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 1st 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 5sq. 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 supports the GPDO amendment 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

