

Preliminary Flood Risk Assessment

12 July 2026

Eco 360

20 Iver Lane, Uxbridge, UB8 2JD

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1. Introduction

The following document is a Preliminary Flood Risk Assessment carried out by Oakshire Environmental, and includes details of the site, vulnerability classification, flood linkages and an evaluation of risk.

1.1 Project Overview

The client's proposed project involves extension and redevelopment to the existing dwelling and construction of an outbuilding at 20 Iver Lane, Uxbridge, UB8 2JD. Oakshire Environmental will carry out a Preliminary Flood Risk Assessment as described below.

1.2 Purpose of Investigation

The objectives of the Preliminary Flood Risk Assessment will be to:

- Develop a detailed assessment of the site.
- Identify potential flood sources, receptors and pathways at the site.
- Assess the level of potential flood risk.
- Determine the requirement or scope of further investigations or mitigation measures.

1.3 Scope of Work

- Desk studies will be carried out to develop a detailed assessment of the site location, setting and vulnerability classification, through analysis of information obtained from sources including the Environment Agency, Local & National Authorities, Strategic Flood Risk Assessments and Digital Terrain Model (DTM) LiDAR topographical surveys.
- This information will be used to identify potential flood sources, receptors and pathways at the site, as part of an initial Conceptual Site Model.
- To assess the level of potential flood risk, a Conceptual Site Model will be produced to categorise the potential severity of the impact of the flood linkage on the receptor and the probability of the flood linkage being present.
- Following the assessment of flood linkages, an evaluation of flood risk, mitigation measures, surface water management and safe access and egress will be conducted to determine the requirement or scope of further investigations.
- Supporting appendix to include photographs, maps and plans of the site.

1.4 Limitations

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This report excludes consideration of potential hazards arising from any activities at the site other than normal use and occupancy for the intended land uses. Hazards associated with any other activities have not been assessed and must be subject to a specific risk assessment by the parties responsible for those activities. Oakshire Environmental does not warrant or guarantee that the site is free of hazardous or potentially hazardous materials or conditions. It should be noted that this report has been produced for environmental purposes only.

2. Site

The following section provides a description of the site, location, proposed development and vulnerability classification, utilising information obtained from the client and publicly available sources.

2.1 Site Description and Location

The site is located on 20 Iver Lane, Uxbridge, UB8 2JD and comprises a dwelling with front driveway at the south and rear garden at the north. The site is bordered by residential dwellings and gardens to the north and east, Iver Lane to the south and Fray’s River to the west.

National Grid Reference: TQ 05242 82327

2.2 Proposed Development

The proposed development involves extension and redevelopment of the existing dwelling and construction of an outbuilding at the site.

2.3 Vulnerability Classification

The NPPF technical guidance determines the suitability of a proposed development in a particular location based on its flood risk vulnerability. Based on Annex 3 of the NPPF, the proposed residential development falls within the category of ‘more vulnerable’.

The flood map for planning indicates that the site falls within Flood Zone 3, however, a Sequential Test is not considered necessary as the proposed development involves redevelopment and construction at an existing residential dwelling.

It should be noted that these Flood Zones do not take into account the impact of any flood defences or site specific mitigation measures.

Table 1: Flood Risk Vulnerability Classification table from National Planning Policy Framework Technical Guidance

Flood Risk Vulnerability Classification					
Flood Zones	Essential Infrastructure	Highly Vulnerable	More Vulnerable	Less Vulnerable	Water Compatible
Zone 1	●	●	●	●	●
Zone 2	●	Exception Test required	●	●	●
Zone 3a	Exception Test required	✗	Exception Test required	●	●
Zone 3b	Exception Test required	✗	✗	✗	●

Key: ● Development is appropriate
 ✗ Development should not be permitted

3. Initial Conceptual Site Model

The following section outlines potential flood sources, pathways and receptors, utilising information gathered in the previous sections, to develop an initial conceptual site model.

3.1 Potential Flood Sources

Rivers & Seas

The site is bordered by Fray's River to the west, and the Environment Agency's flood map for planning shows that the site would flood in a 3.33% Annual Exceedance Probability (AEP) flood event if flood defences did not exist, however, when taking into account the impact of climate change, the extent of river flooding is not materially increased.

Surface Water

Surface water runoff is caused by heavy rainfall that can overwhelm the drainage network. The Environment Agency Risk of Flooding from Surface Water mapping can be used to identify areas at risk of surface water flooding. Map data shows that surface water predominantly follows topographical flow paths of existing watercourses or dry valleys and can pond in low-lying areas. The risk is most often confined to roads with some run-off flow routes around properties.

Environment Agency maps show that surface water flooding would not impact the site in a 1% AEP flood event, including when taking into account climate change allowances on surface water flooding.

Groundwater

Flooding from groundwater can occur when the water table rises and reaches ground level allowing water to seep through to the surface. This means that water may rise up through floors or underground rooms such as cellars or basements. Groundwater flooding is much slower to occur than river flooding and will usually happen days, weeks or even months after heavy or prolonged rainfall. And it may last weeks or even months.

Sewers

Sewer flooding occurs when heavy rainfall and flooding overloads sewer capacity or when sewers cannot discharge to watercourses due to high water levels. Sewer flooding can also be caused by blockages, collapses, equipment failure or groundwater leaking into sewer pipes. Sewer flooding is often synonymous with other sources of flooding such as river, surface water and groundwater flooding.

Reservoirs

The level and standard of inspection and maintenance required for reservoirs means that the risk of flooding from reservoirs is generally very low, in addition, there are no reservoirs within 1km of the site and Environment Agency mapping shows that the site is not at risk of flooding in the event of a reservoir failure or overtopping.

4. References

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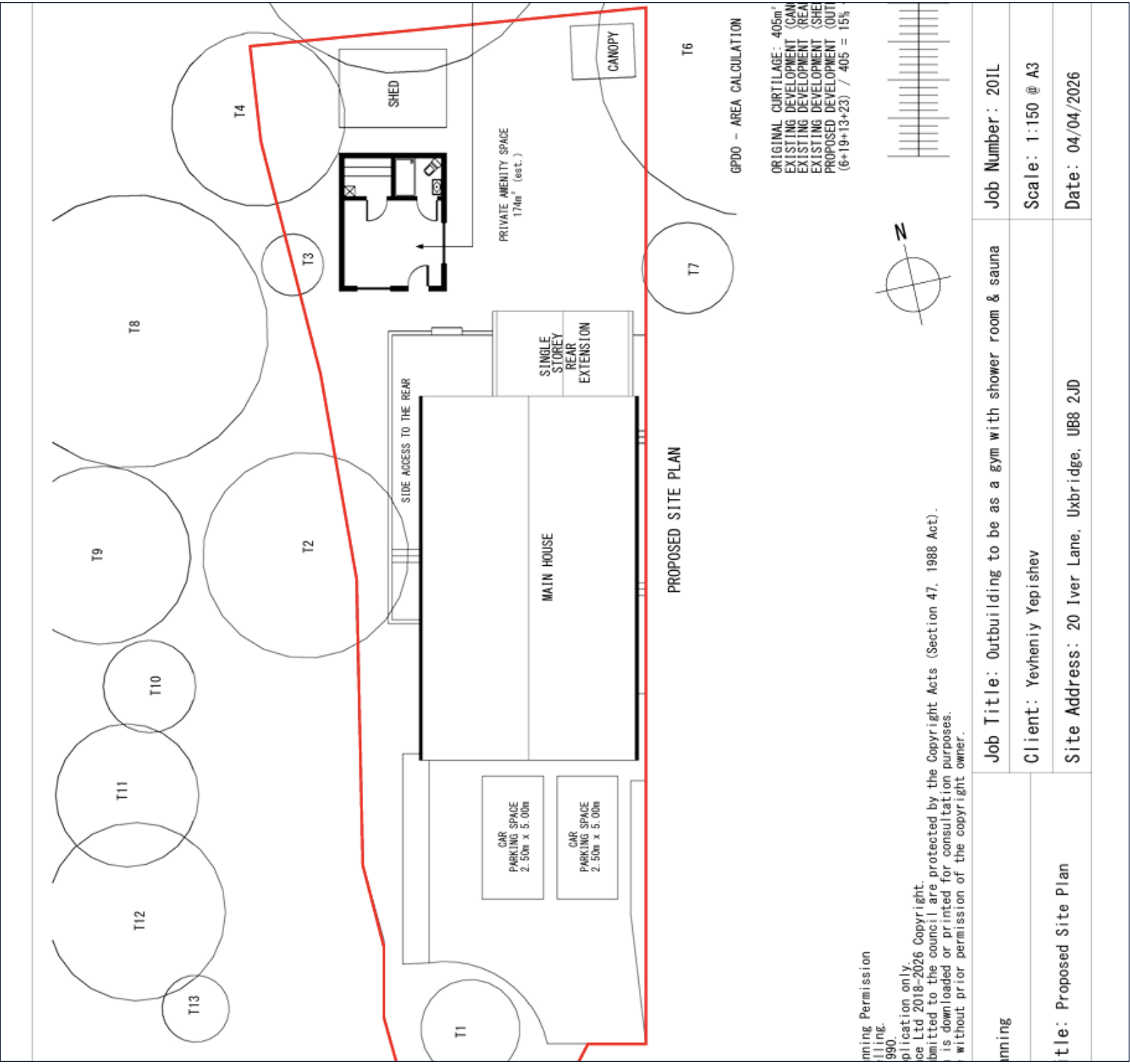
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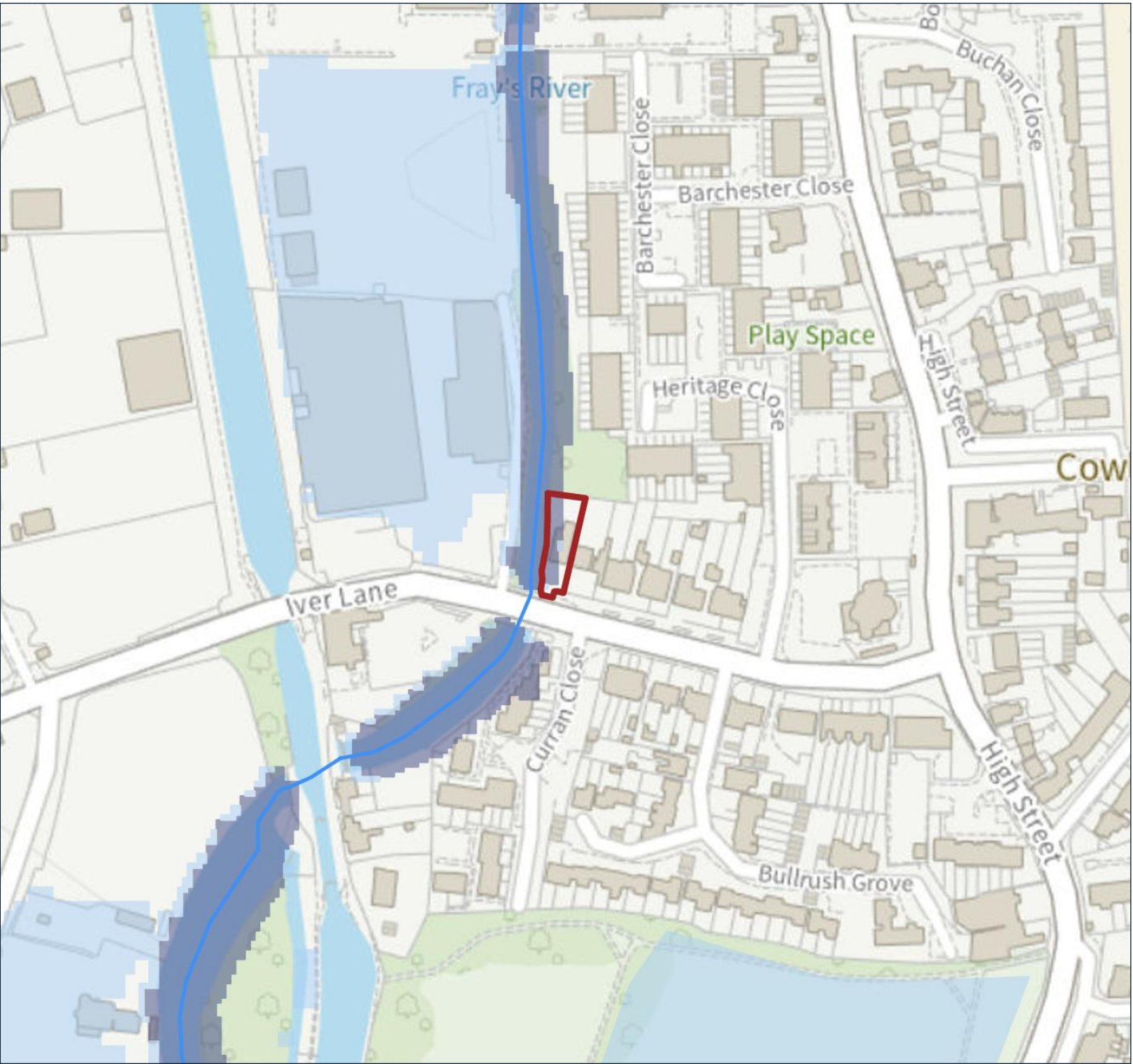


Appendix - Site Maps & Plans

Description	
Site location plan	
Sources	
Contains OS data © Crown copyright and database rights	
Key	
	Site boundary
	North

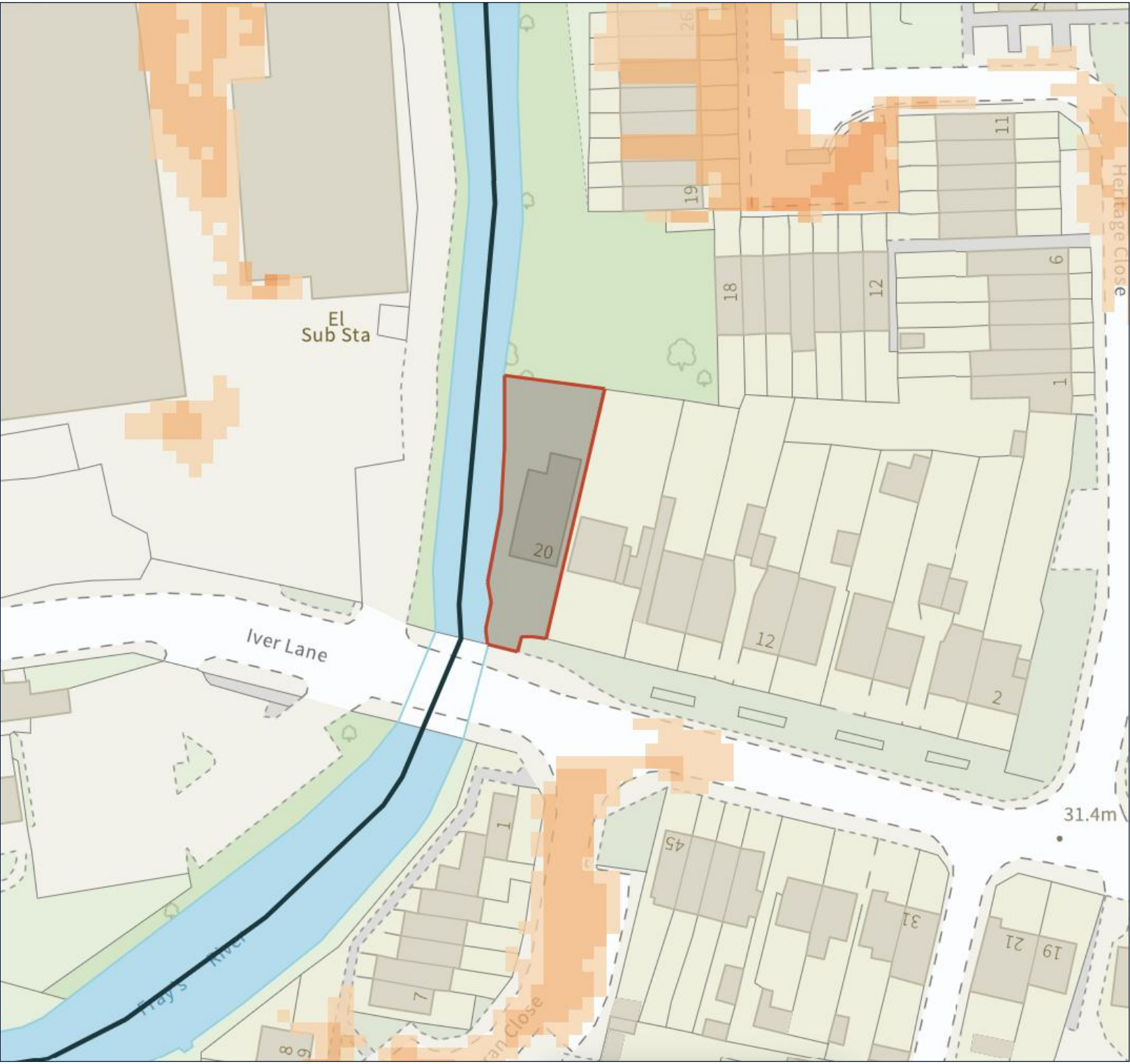


Appendix - Site Maps & Plans	
Description	
Proposed site plan	
Sources	
EnGage Reliance Ltd	
Key	
	Site boundary
	North

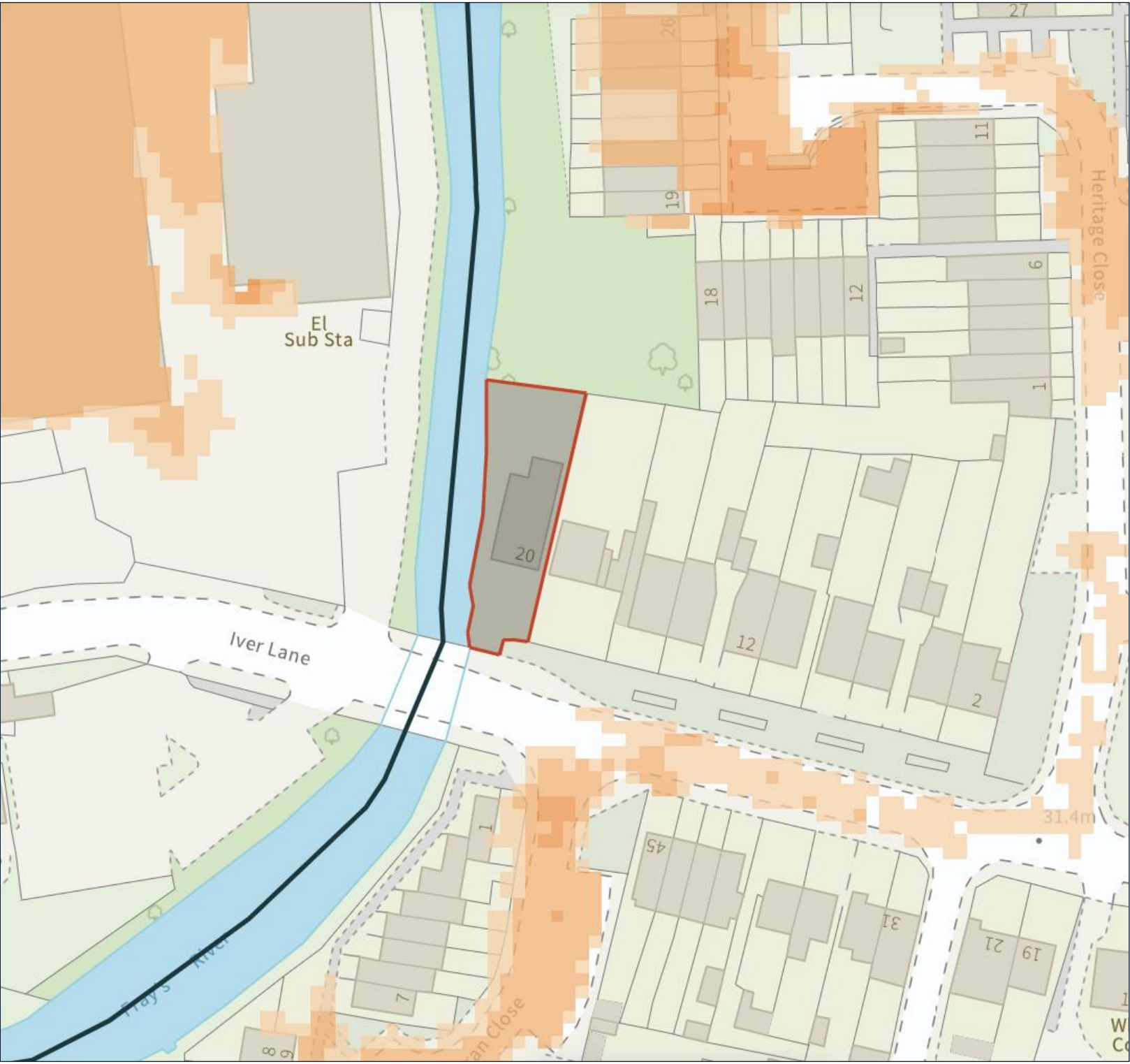


Appendix – Flood Risk Maps

Description	
Flood map for planning	
Sources	
Environment Agency OS data © Crown copyright and database rights	
Key	
	Site boundary
	Flood Zone 1
	Flood Zone 2
	Flood Zone 3
	Main river
	Flood defence
	North



Appendix - Flood Risk Maps	
Description	
Environment Agency map showing the depth of flooding from surface water in a 1% AEP event	
Sources	
Environment Agency OS data © Crown copyright and database rights	
Key	
	Site boundary
	≤ 150mm
	> 150mm
	> 300mm
	> 600mm
	> 900mm
	> 1200mm
	> 2300mm
	North



Appendix - Flood Risk Maps	
Description	
Environment Agency map showing the depth of flooding from surface water in a 1% AEP event, taking into account climate change to the year 2125	
Sources	
Environment Agency OS data © Crown copyright and database rights	
Key	
	Site boundary
	≤ 150mm
	> 150mm
	> 300mm
	> 600mm
	> 900mm
	> 1200mm
	> 2300mm
	North