Flood Risk Assessment, December 2023

Garage conversion and rear single storey extension to incorporate garage into main dwelling of 75 Roseville Road, Hayes, UB3 4QY

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APPENDICES

Appendix A Environment Agency Flood Map

1.0 INTRODUCTION

Overview

1.1 Lewis Designs Architects has been commissioned by Peepal Tree Support Services Ltd to produce a Site Specific Flood Risk Assessment (SSFRA) in support of the potential garage conversion and 3m single storey rear at 75 Roseville Road. The site location is shown on Figure 1.

1.2 The site covers an area of approximately 318sqm and is covered by hardstanding, lawn outbuilding and a dwelling.

1.3 Subject to planning, the proposal is to erect a rear 3m single storey extension and remodeling of existing outbuilding to connect structure into the main dwelling.

1.4 Areas of the site are located within Flood Zone 1 and 2 and a SSFRA has been requested by the planning department to assess flooding risk.

1.5 The site is not located in a Critical Drainage Area.

1.6 The purpose of this report is therefore to assess flood risk at the site and set out the design and mitigation controls that will be adopted for the management of flood risk.

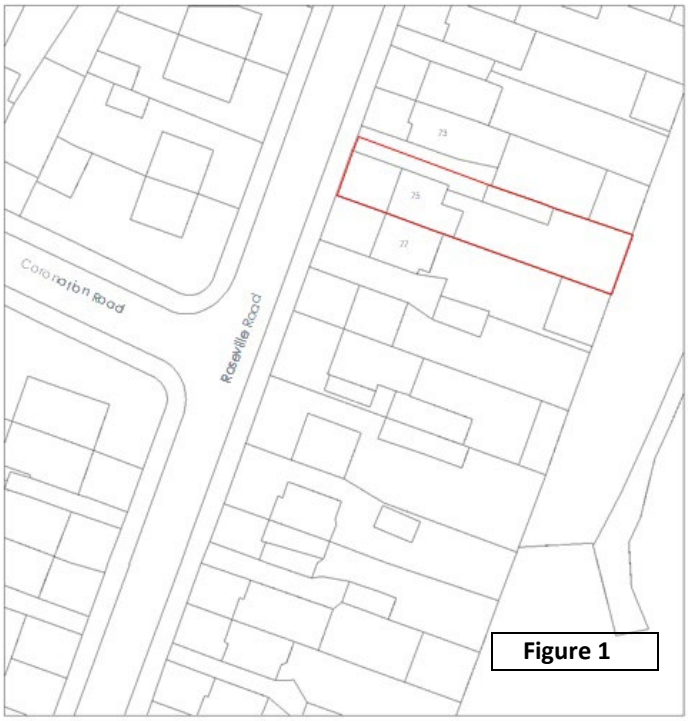


Figure 1

Local Policy Guidance

1.7 Policy EM6 of the Hillingdon Local Plan: Part One – Strategic Policies (November 2012), Policy DMEI 9 of the Hillingdon Local Plan: Part Two - Development Management Policies, Policy 5.12 of the London Plan (2016) and the NPPF.

2.0 SITE DESCRIPTION AND BASELINE CONDITIONS

2.1 Layout and Use

2.2 The site is located some 115 m west of the river Crane. The site's topography ranges from between approximately 29.53 and 31.12m Above Ordnance Datum (AOD) with a gentle downward gradient from west to east.

2.3 Surface water at the site is drained via soakaways.

2.4 The site is occupied by a dwelling, outbuilding, lawn, patio and hardstanding.

Geology and Hydrogeology

2.5 Lithological Description: Sand and gravel, with possible lenses of silt, clay or peat. Poorly sorted, stratified gravel and locally tabular cross-bedded sand beds. Gravel assemblage is characterised by abundant angular flint (77-81%), sparse rounded flint (5-10%), sparse vein quartz (4-7%), sparse quartzite (1.5-5%), sparse Greensand chert (2.5-4%) and less than 1% of other types.

2.6 Bedrock geology. London Clay Formation - Clay, Silt and Sand. Sedimentary Bedrock formed approximately 48 to 56 million years ago in the Palaeogene Period.

2.7 The London Clay has very low permeability and is considered a non-aquifer.

2.8 Superficial deposits. Taplow Gravel Member - Sand and Gravel. Superficial Deposits formed up to 2 million years ago in the Quaternary Period. Local environment previously dominated by rivers.

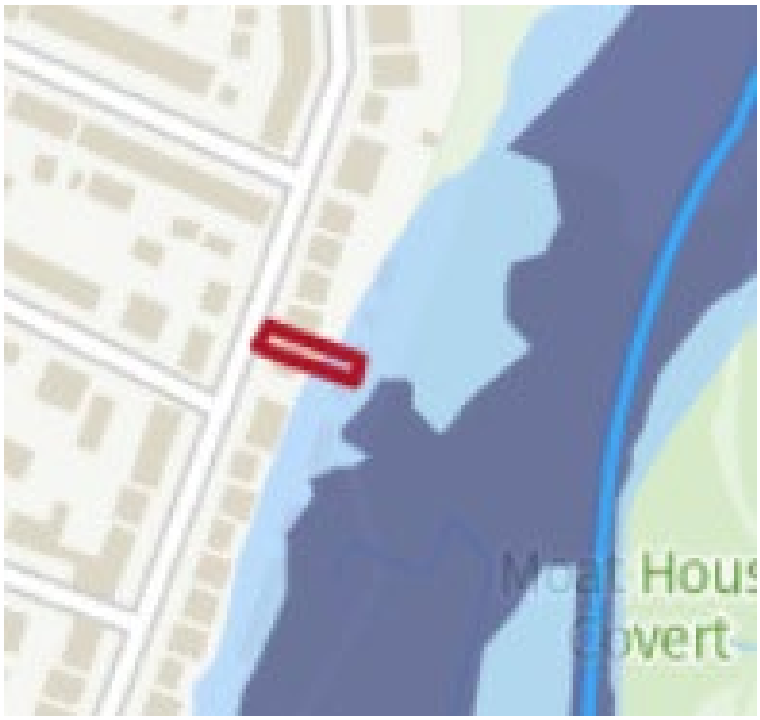
3.0 FLOOD RISK ASSESSMENT AND MITIGATION

3.1 The site is **NOT** located in a Critical Drainage Area.

3.2

3.3 The site is **NOT** at high risk from Surface water flooding.

3.4



3.5 The rear of site is located with Flood Zone 2 which carries a risk of fluvial flooding, however, the proposed extension is **NOT** within this area.

3.6

3.7 GLA 2011 – Increased Potential for Elevated Groundwater. Purple indicates **Permeable Superficial.** Site is **NOT** within area.

3.8 Irrespective of low flood risk, it is recommended that, where practicable, the development incorporates flood resilience measures on the ground floor including: raising electrical services, circuits and sockets; bringing cables down from the ceiling instead of up from the floor; and installing air brick vent guards. Further guidance can be obtained from the 2007 Communities and Local Government document 'Improving the Flood Performance of New Buildings – Flood Resilient Construction'.

3.9 It is proposed that all bedrooms in the development will be on the first floor (refer to Appendix A). This would be considerably higher than the potential flood level and therefore the risks to human health are minimised.

3.10 The risk of inundation is highest if any development utilises a basement, either for storage and/or car parking. The existing proposals **DO NOT** incorporate basements at the site. In the event that this is a component of the detailed design at a later date, further discussions will be required with the Environment Agency.

3.11 In order to maintain or improve run-off rates and to reduce the risk of ponding, the drainage design should incorporate 120l rainwater butt.

4.0 CONCLUSIONS

4.1 The site is situated within both flood zones 1 and 2, however the proposal falls wholly within flood 1.

4.2 The installation of a 120ml rainwater butt will help improve the amount of annual rainfall that flows away from the site towards the vulnerable river and functional floodplain adjacent.

4.3 Lewis Designs conclude that the proposed development is considered acceptable in terms of flood risk.

Appendix A
Environment Agency Flood Map

Flood map for planning

Your reference	Location (easting/northing)	Created
<Unspecified>	**510263/178544**	**30 Nov 2023 17:55**

Your selected location is in flood zone 2, an area with a medium probability of flooding.

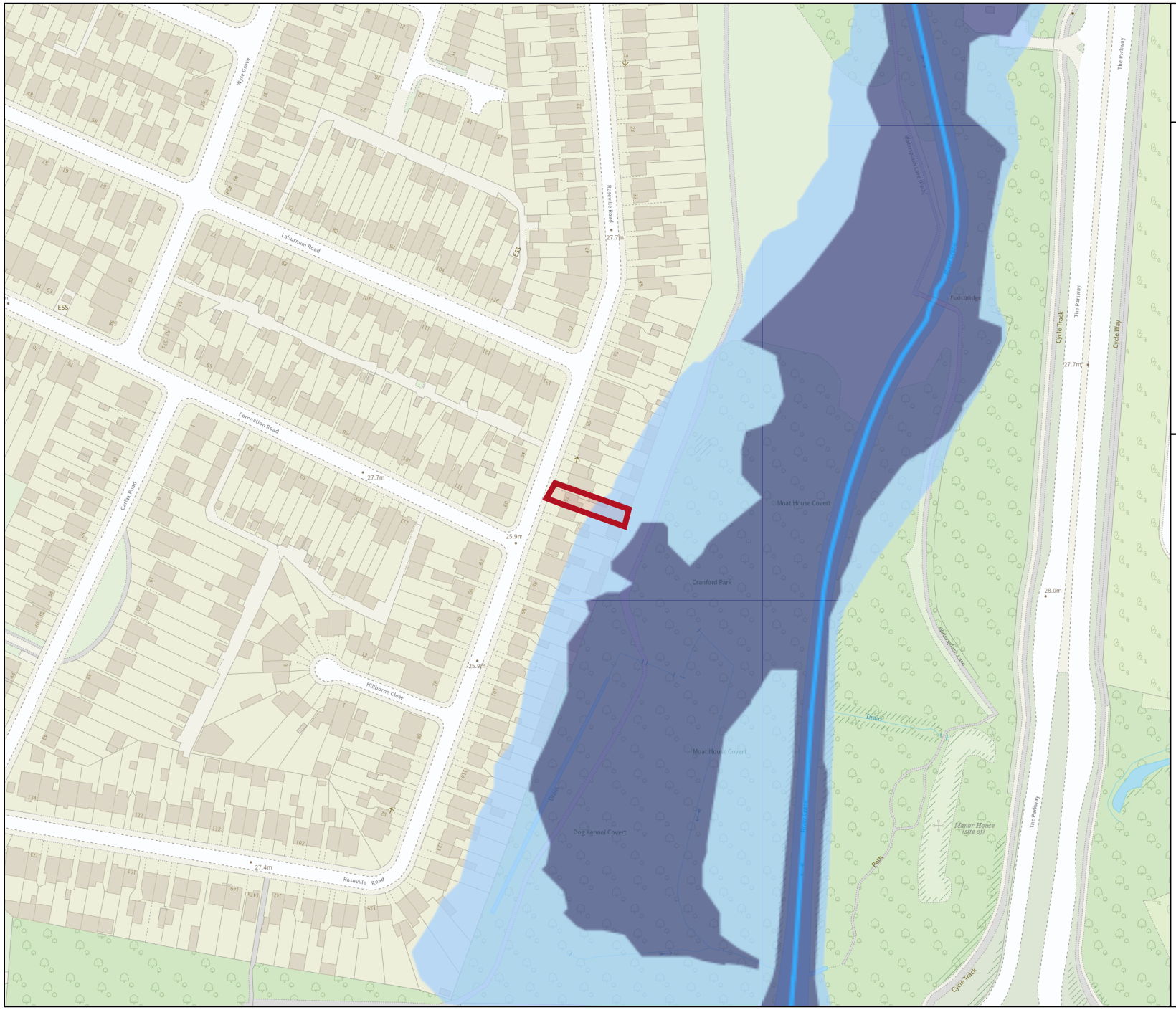
This means:

- you must complete a flood risk assessment for development in this area
- you should follow the Environment Agency's standing advice for carrying out a flood risk assessment (see www.gov.uk/guidance/flood-risk-assessment-standing-advice)

Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.



Environment Agency

Flood map for planning

Your reference
<Unspecified>

Location (easting/northing)
510263/178544

Scale
1:2500

Created
30 Nov 2023 17:55

- Selected area
- Flood zone 3
- Flood zone 2
- Flood zone 1
- Flood defence
- Main river
- Water storage area

0 20 40 60m