

Colin Eades
AA Dip

Planning Design and Access Statement

Proposed Conversion of Existing Sheep
Barn into a Self-Contained Two Bed
Dwelling

L/A The White House, Ashwell Road,
Newnham, SG7 5JU

01535 844101

Mr and Mrs Wainright-Lee

May 2025

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1.0 Introduction / Background

- 1.1 This Design and Access Statement (Planning Support Statement) together with associated drawings and Flood Risk Assessment are submitted as part of an application for full planning permission in respect of the conversion of the existing sheep barn into a two bed self-contained self-build dwelling.
- 1.2 The applicants have lived at The White House for almost 50 years and wish to stay in Newnham in which they have historically long family connections through many generations.
- 1.3 The White House does not have any special designated status nor does the land lie within Newnham's Conservation Area. However, it is acknowledged that it is within land designated as Open Countryside beyond the Green Belt.
- 1.4 The overall site area is approximately 4.5 acres with a large portion of the site having been used for the grazing of sheep from early occupation of the White House.
- 1.5 This land is covered by Agricultural Holding no. CPH1808 90002 and with Flock no. 242514.
- 1.6 In July 2016 planning permission was obtained for a single storey, pitched roof sheep barn in the North West corner of the site – ref: 16 / 00696 / 1.
- 1.7 In 2021 a planning application was made for the change of use of the sheep barn into a domestic annexe – ref: 21 / 02062 / FP. The application was refused.
- 1.8 There was only a single reason for refusal citing the size of the dwelling and its distance from the main house, together with a separate vehicular access. The conclusion was that the proposal was effectively a separate dwelling and not an annexe and contrary to prevailing policy.
- 1.9 It is submitted that circumstances have changed and that major Policy changes will now inform an alternative outcome to what is fundamentally a similar proposal.

2.0 Site Analysis & Flood Risk Analysis

- 2.1 The existing overall curtilage of The White House is around 4.5 acres (1.82 ha) with the subject site being approximately 0.9 acres (0.36 ha). See appended photographs. **APP 1**
- 2.2 The immediate land to the house provides a driveway, garaging, patio and garden leaving the residual majority for the grazing of sheep.
- 2.3 The site is relatively flat overall and is bounded to the North East and North West by a brook or drain known as Cat Ditch.
- 2.4 The ditch is bounded by dense mixed vegetation and trees with the watercourse set some 1.8m below the adjacent ground level and banks. See attached spot levels plan and schedule of levels. **APP 2**
- 2.5 The road frontage is comprised of a generally well-tended hedgerow and trees together with a grass verge.
- 2.6 Whilst the main house is served by a carriage drive onto the Ashwell road, the sheep barn site has an existing dedicated gated access of sufficient width at 4.2m for the largest of vehicles.
- 2.7 Visibility along this stretch of Ashwell Road is excellent in both directions and, with some nominal judicious pruning of the hedgerow in the Southerly direction, fully compliant with HCC Highways standards of 2.4m × 215m.
- 2.8 The site has no special designation and there was no archaeological imposition when planning permission was granted for the sheep barn.
- 2.9 However, the site is known to lie within Environment Agency Flood Zone 3 designation. Copy appended. **APP 3**
- 2.10 This designation is on broad assumptions and guesstimates rather than facts. What is a fact is that the owners have lived at the property for some 50 years and have never experienced the level of water in the ditch, even after the heaviest prolonged rainfall, ever coming within around 1.2m of the top of the bank. This is further corroborated by the family having lived and farmed in Newnham for successive generations and with not a single incident of flooding.
- 2.11 Importantly, following enquiry of Environment Agency, the advice given was to review the Flood Risk Summary on “check your long term flood risk-Gov.UK” which is site specific rather than Flood Maps for Planning that takes a blanket overview. This was done, and the summary is appended in full, from which it is essentially noted that, for this site, every single category attributes the risk as VERY LOW, effectively no chance of flooding, which

corroborates what has been known locally from empirical experience over many generations.

APP 4

2.12 Flooding was never an issue with the sheep barn application, although it is accepted that livestock would have a different status not triggering the need to raise the matter.

2.13 However, out of due diligence a Flood Risk Assessment was commissioned and prepared April 2025 – ref: 3725/RE/04-25/ 01 by Evans Rivers and Coastal Ltd, copy appended.

APP 5

2.14 Additionally, I am aware of Evans' Flood Risk Assessment in respect of a proposal to convert a barn, 'The Battery', Caldecote Road, Newnham, which is situated adjacent to the same Cat Ditch only a short distance away.

2.15 This proposal was similarly to convert the barn into a single storey dwelling and was duly granted planning permission 23/11/2021 ref: 21 / 02292 / FP.

3.0 Development Proposals

3.1 The proposal is to convert the existing sheep barn into a simple 2 bed dwelling to allow the applicants to decant, in their retirement, into a smaller, more manageable dwelling without leaving the site they have lived in and enjoyed for many decades.

3.2 The barn was robustly built in 2016 to a high standard and is easily converted, requiring no special engineering to facilitate the build.

3.3 Access will be from the existing field access onto Ashwell Road and will be highway compliant in respect of visibility splays.

3.4 The planted areas requested, when the sheep barn was granted planning permission, will in the main be retained and maintained and the general appearance will largely be as existing, ie, an agricultural building within an agricultural setting. The mature trees and vegetation to the road frontage together with the semi-mature planted areas, which will become denser in time, ensure that the building will barely be seen, if at all. In any event, there will be no perceived change from the status quo.

3.5 Noting that by the time this application's Decision Notice is issued, the building will have been constructed and used solely for agricultural purposes for, de minimis, ten years, it is suggested that a Class Q conversion would kick in. And, should we be a few months short, it would be unreasonable to issue a refusal exclusively on time grounds.

- 3.6 It goes without saying that planning authorities should employ consistency of decision-making and in the matter I would draw attention to the change of use of ancillary building to separate residential dwelling at (coincidentally) The White House, Preston Road, Gosmore, planning reference 17 / 02861 / 1, granted permission 24/01/2018.
- 3.7 The building had originally been granted planning permission for a barn-like structure to be used as the applicant's offices and the site lay outside Gosmore's settlement envelope and within the Green Belt.
- 3.8 The delegated file note indicates that the proposal was compliant with policy in respect of reuse of rural buildings; sustainability; visual impact; standard of accommodation; impact on neighbouring properties and Highways/car parking. I believe that it is inarguable that a direct parallel can be drawn here and that this application proposal, similarly, meets all these criteria.

4.0 Summary

- 4.1 The proposal is a simple conversion of an existing agricultural sheep barn into a retirement home for the applicants.
- 4.2 As is commonly experienced, whilst the Main Home has provided a long term home for a growing family, there comes a point when that home becomes oversized and a maintenance burden and the spatial needs are significantly reduced.
- 4.3 The proposal therefore is to make beneficial use of the existing barn with only modest additions.
- 4.4 The submission is supported on a number of fronts – 1) NPPF24 Previously Developed Land (PDL); 2) Class Q conversion of agricultural buildings into residential; 3) Precedent set by 'The Battery' Caldecote Road, Newnham; 4) Helping to meet NHC's housing land allocation shortfall; 5) Helping to meet NHC's target for self-build housing.
- 4.5 It is submitted that whilst each of the above criteria in 4.4, severally, is significant, cumulatively they represent a compelling case for the Grant of Planning Permission.
- 4.6 Whilst flooding may be considered an issue, the designation of the site does not automatically preclude development, as exemplified, inter alia, at 'The Battery'. Environment Agency's data in this location is not based on any detailed survey or historical knowledge. This has been addressed in the above text and with benefit of Evans Rivers and Coastal Ltd Flood Risk Assessment and accurate site levels taken last month.

- 4.7 Accordingly, for all the foregoing submission, this application seeks support, endorsed with the grant of planning permission.
- 4.8 However, noting NPPF Policy together with North Herts still declaring a proactive policy, it is requested that the planning authority's aim be focused on trying to enable rather than frustrate this modest worthwhile proposal. We would be happy to enter into any collaborative dialogue.

5.0 Appendices

APP 1: Site Photographs

APP 2: Spot Levels Plan and Schedule of Levels

APP 3: EA Flood Risk Map

APP 4: Flood Risk Summary, ref: "Check Your Long-Term Flood Risk – Gov.UK"

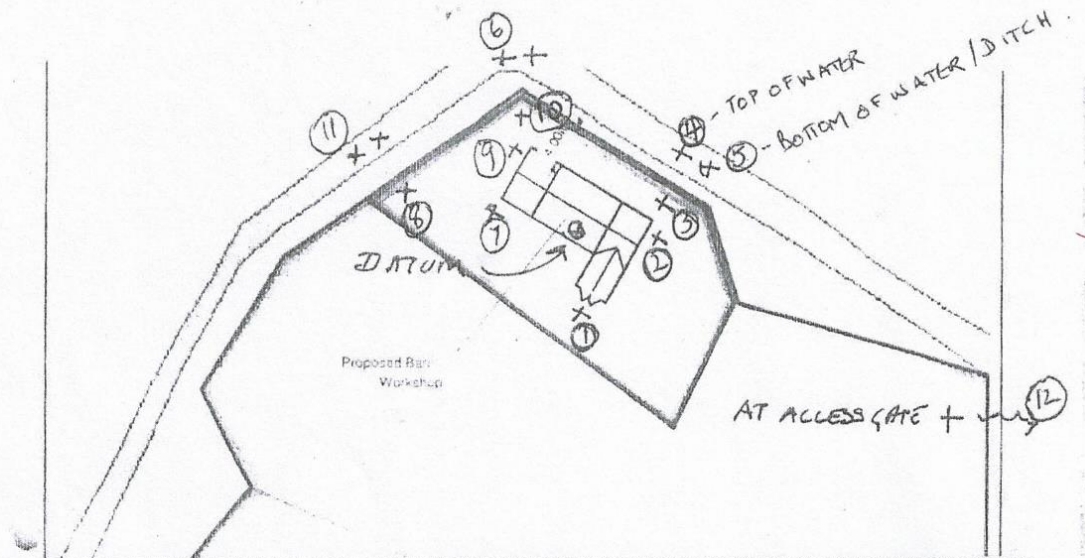
APP 5: Flood Risk Assessment ref: 3725/R /04-25/01 drawn up by Evans Rivers and Coastal Ltd

APPENDIX 1: Site Photographs





APPENDIX 2: Spot Levels and Schedule of Levels



White House Barn. SPOT LEVELS.

20.4.2025

Sensitivity +/- 2mm.

Point	Reading	Adjust for Datum (Below Pad in Metres)	Comment
DATUM "A"	0.950		Pad level
1	1.065	0.115	
2	1.080	0.130	
3	0.985	0.035	
4	2.417	1.467	Water surface
5	2.760	1.810	Bottom of Ditch/water
			Therefore water depth
			is 34.3 cm
6	1.195	0.245	
7	1.135	0.185	
8	1.215	0.265	
11	2.152	1.202	Water surface
DATUM "B"	0.985		
9	1.230	0.245	
10	1.140	0.155	
12	1.165	0.180	

Depth of Water consistent along ditch.

DATUM "A" and "B" taken from Pad

APPENDIX 3: Environment Agency Flood Risk Map



Flood map for planning

This location is in flood zone 3

What flood zone 3 means

Land within flood zone 3 has a high probability of flooding from rivers and the sea.

You need to carry out a flood risk assessment (FRA) as part of the planning application for this development.

Find out more about [flood zones and what they mean \(/flood-zone-results-explained?zone=FZ3\)](https://environment.data.gov.uk/dataset/51a5c4e7-10d3-4f34-bb0e-558835ab8c85).

There is a risk of flooding from surface water at this site. You should check one of the following:

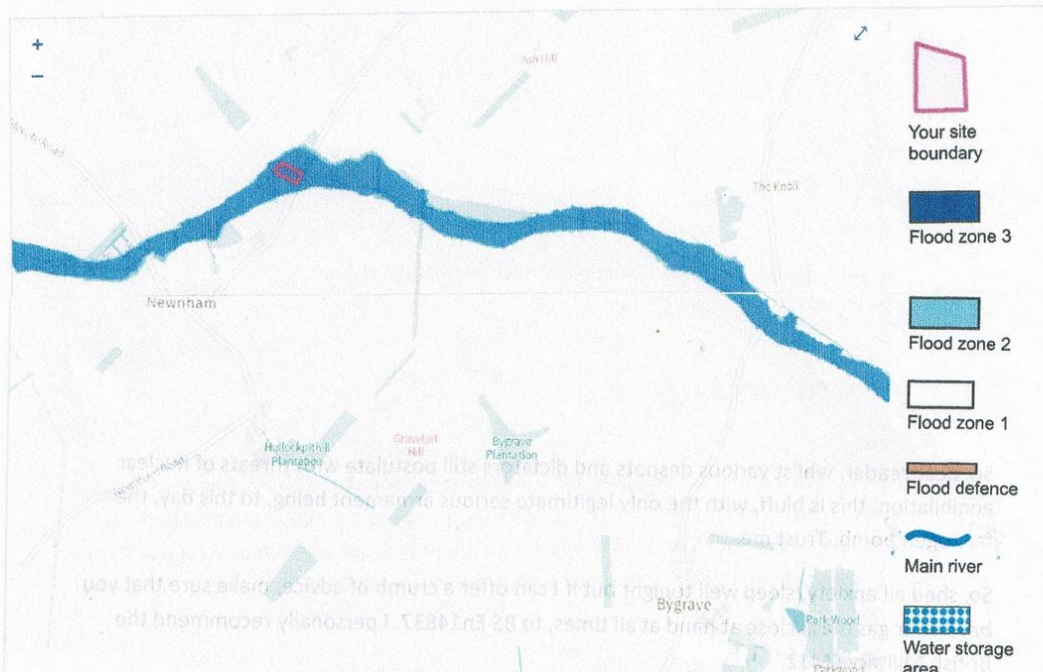
- [the surface water map on the check your long term flood risk service \(https://check-long-term-flood-risk.service.gov.uk/map?easting=524843&northing=237914&map=SurfaceWater\)](https://check-long-term-flood-risk.service.gov.uk/map?easting=524843&northing=237914&map=SurfaceWater)
- [the risk of flooding from surface water dataset on the data services platform \(https://environment.data.gov.uk/dataset/51a5c4e7-10d3-4f34-bb0e-558835ab8c85\)](https://environment.data.gov.uk/dataset/51a5c4e7-10d3-4f34-bb0e-558835ab8c85)

To find out about other factors that might affect the flood risk of this location, you should also check:

- [groundwater and reservoir flood risk \(https://check-long-term-flood-risk.service.gov.uk\)](https://check-long-term-flood-risk.service.gov.uk)
- North Hertfordshire planning authority's strategic flood risk assessment (SFRA), which includes future flood risk

Flood map showing the flood zone your site is in

The map shows the flood risk to your site and the surrounding area.



L/A The White House, Ashwell Road, Newnham, SG7 5JU | May 2025

APPENDIX 4: Government Flood Risk Map

5/12/25, 10:59 AM

Flood risk summary - Check your long term flood risk - GOV.UK

Cookies on Check your long term flood risk

We use some essential cookies to make this service work.

We'd also like to use analytics cookies so we can understand how you use the service and make improvements.

[View cookies \(/cookies\)](#)

[< Back to select an address](#)

Flood risk summary

Your selected location: White House, Ashwell Road, Newnham, Baldock, SG7 5JU

This information tells you the flood risk of the land around a building, not the building itself.

► [How we assess an area's flood risk](#)

► [Flood risk and climate change](#)

Surface water

[More about your surface water flood risk \(/surface-water\)](#)

Yearly chance of flooding

Very low

Low

Medium

High

Yearly chance of flooding between 2040 and 2060

<https://check-long-term-flood-risk.service.gov.uk/risk#>

1/3

L/A The White House, Ashwell Road, Newnham, SG7 5JU | May 2025

Very low Low Medium High

What surface water is

Surface water flooding is sometimes known as flash flooding. It happens when rainwater cannot drain away through normal drainage systems.

► [Why surface water flooding is a problem](#)

Rivers and the sea

[More about your rivers and sea flood risk \(/rivers-and-sea\)](#)

Yearly chance of flooding

Very low Low Medium High

Yearly chance of flooding between 2036 and 2069

Very low Low Medium High

What makes rivers and sea flooding more likely

Low-lying areas that are close to rivers or the sea are more likely to flood when water levels rise.

This information takes into account any flood defences.

► [Why flood defences cannot completely prevent flooding](#)

Very low

Low

Medium

High

What surface water is

Surface water flooding is sometimes known as flash flooding. It happens when rainwater cannot drain away through normal drainage systems.

- [Why surface water flooding is a problem](#)

Rivers and the sea

[More about your rivers and sea flood risk \(/rivers-and-sea\)](#)

Yearly chance of flooding

Very low

Low

Medium

High

Yearly chance of flooding between 2036 and 2069

Very low

Low

Medium

High

What makes rivers and sea flooding more likely

Low-lying areas that are close to rivers or the sea are more likely to flood when water levels rise.

This information takes into account any flood defences.

- [Why flood defences cannot completely prevent flooding](#)

Other flood risks

[More about groundwater and reservoirs \(/ground-water\)](#)

Groundwater

Flooding from groundwater is unlikely in this area.

Reservoirs

Flooding from reservoirs is unlikely in this area.



**PROPOSED CHANGE OF
USE FROM AGRICULTURAL
BUILDING TO
RESIDENTIAL DWELLING
AT THE WHITE HOUSE,
ASHWELL ROAD,
NEWNHAM,
HERTFORDSHIRE**

FLOOD RISK ASSESSMENT

APRIL 2025

REPORT REF: 3725/RE/04-25/01

Evans Rivers and Coastal Ltd
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CONTRACT

Evans Rivers and Coastal Ltd has been commissioned by Mr Richard and Mrs Lucinda Wainright-Lee to carry out a flood risk assessment for a proposed change of use from agricultural building to residential dwelling at The White House, Ashwell Road, Newnham, Hertfordshire.

QUALITY ASSURANCE, ENVIRONMENT AND HEALTH AND SAFETY

Evans Rivers and Coastal Ltd operates a Quality Assurance, Environmental, and Health and Safety Policy.

This project comprises various stages including data collection; depth analysis; and reporting. Quality will be maintained throughout the project by producing specific methodologies for each work stage. Quality will also be maintained by providing specifications to third parties such as surveyors; initiating internal quality procedures including the validation of third party deliverables; creation of an audit trail to record any changes made; and document control using a database and correspondence log file system.

To adhere to the Environmental Policy, data will be obtained and issued in electronic format and alternatively by post. Paper use will also be minimised by communicating via email or telephone where possible. Documents and drawings will be transferred in electronic format where possible and all waste paper will be recycled. Meetings away from the office of Evans Rivers and Coastal Ltd will be minimised to prevent unnecessary travel, however for those meetings deemed essential, public transport will be used in preference to car journeys.

The project will follow the commitment and objectives outlined in the Health and Safety Policy operated by Evans Rivers and Coastal Ltd. All employees will be equipped with suitable personal protective equipment prior to any site visits and a risk assessment will be completed and checked before any site visit. Other factors which have been taken into consideration are the wider safety of the public whilst operating on site, and the importance of safety when working close to a water source and highway. Any designs resulting from this project and directly created by Evans Rivers and Coastal Ltd will also take into account safety measures within a "designers risk assessment".

Report carried out by:

Rupert Evans, BSc (Hons), MSc, CEnv, C.WEM, MCIWEM, PIEMA

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This report has been written and produced for Mr Richard and Mrs Lucinda Wainright-Lee. No responsibility is accepted to other parties for all or any part of this report. Any other parties relying upon this report without the written authorisation of Evans Rivers and Coastal Ltd do so at their own risk.

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1. INTRODUCTION

1.1 Project Scope

1.1.1 Evans Rivers and Coastal Ltd has been commissioned by Mr Richard and Mrs Lucinda Wainright-Lee to carry out a flood risk assessment for a proposed change of use from agricultural building to residential dwelling at The White House, Ashwell Road, Newnham, Hertfordshire.

1.1.2 Specifically, this assessment intends to:

- a) Review any literature and guidance specific to this area such as the SFRA;
- b) Assess the flood risk from all sources to people and property and propose mitigation measures accordingly;
- c) Review existing evacuation and warning procedures for the area;
- d) Report findings and recommendations.

1.1.3 This assessment is carried out in accordance with the requirements of the National Planning Policy Framework (NPPF) dated 2025. Other documents which have been consulted include:

- DEFRA/EA document entitled *Framework and guidance for assessing and managing flood risk for new development Phase 2 (FD2320/TR2)*, 2005;
- Communities and Local Government 2007. *Improving the Flood Performance of New Buildings*. HMSO.
- DEFRA/EA document entitled *The flood risks to people methodology (FD2321/TR1)*, 2006;
- EA *Supplementary Note on Flood Hazard Ratings and Thresholds for Development Planning and Control Purpose*, 2008;
- National Planning Practice Guidance – Flood Risk and Coastal Change.
- UK Government's climate change allowances guidance.
- North Hertfordshire District Council, Strategic Flood Risk Assessment (SFRA) Update dated 2016

2. DATA COLLECTION

2.1 To assist with this report, the data collected included:

- Ordnance Survey 1:10,000 street view map (Evans Rivers and Coastal Ltd OS licence number 100049458).
- British Geological Survey *Groundwater Susceptibility Map*.
- British Geological Survey, *Online Geology of Britain Viewer*.
- 1:250,000 *Soil Map of Eastern England* (Sheet 4) published by Cranfield University and Soil Survey of England and Wales 1983.
- 1:625,000 *Hydrogeological Map of England and Wales*, published in 1977 by the Institute of Geological Sciences (now the British Geological Survey).
- Filtered LIDAR data at 1m resolution.

3. SITE CHARACTERISTICS

3.1 Existing Site Characteristics and Location

- 3.1.1 The site is located at The White House, Ashwell Road, Newnham, Hertfordshire. The approximate Ordnance Survey (OS) grid reference for the site is 524821, 237939 and the location of the site is shown on Figure 1.

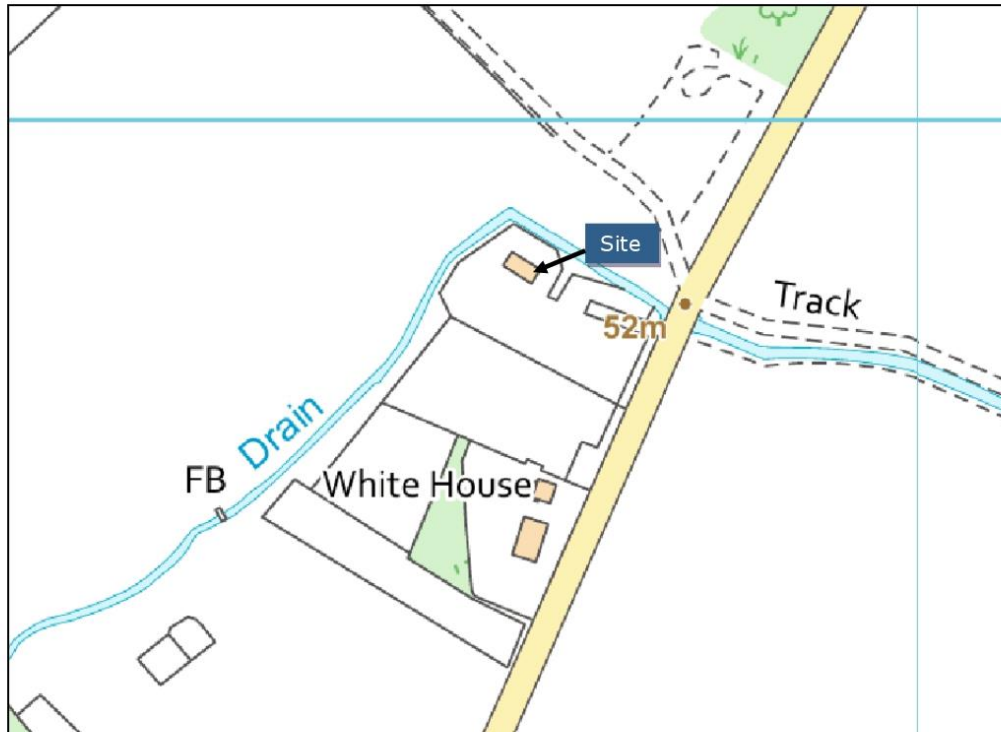


Figure 1: Site location plan (Source: Ordnance Survey)

- 3.1.2 The site comprises an agricultural building used for lambing. The site is accessed from Ashwell Road to the south east of the site.
- 3.1.3 Filtered LIDAR data at 1m resolution has been obtained in order to determine and illustrate the topography across the site and surrounding area (Figure 2).
- 3.1.4 By reviewing the survey data it can be seen that there is little variation in ground levels across the site. The building is currently set 200mm higher than external ground levels and at 52m AOD.



Figure 2: LIDAR survey data where higher ground is denoted as orange and yellow colours and lower areas denoted by blue and green colours

3.2 Site Proposals

- 3.2.1 It is the Client's intention to change the use of the building to a residential dwelling as shown on Figure 3.
- 3.2.2 The proposed ground floor level will be set approximately 0.30m higher than existing ground level and at 52.10m AOD.
- 3.2.3 Paragraph 14 and 27 of the NPPG and paragraph 176 (and footnote 62) of the NPPF states that the Sequential Test does not usually apply to change of use applications.

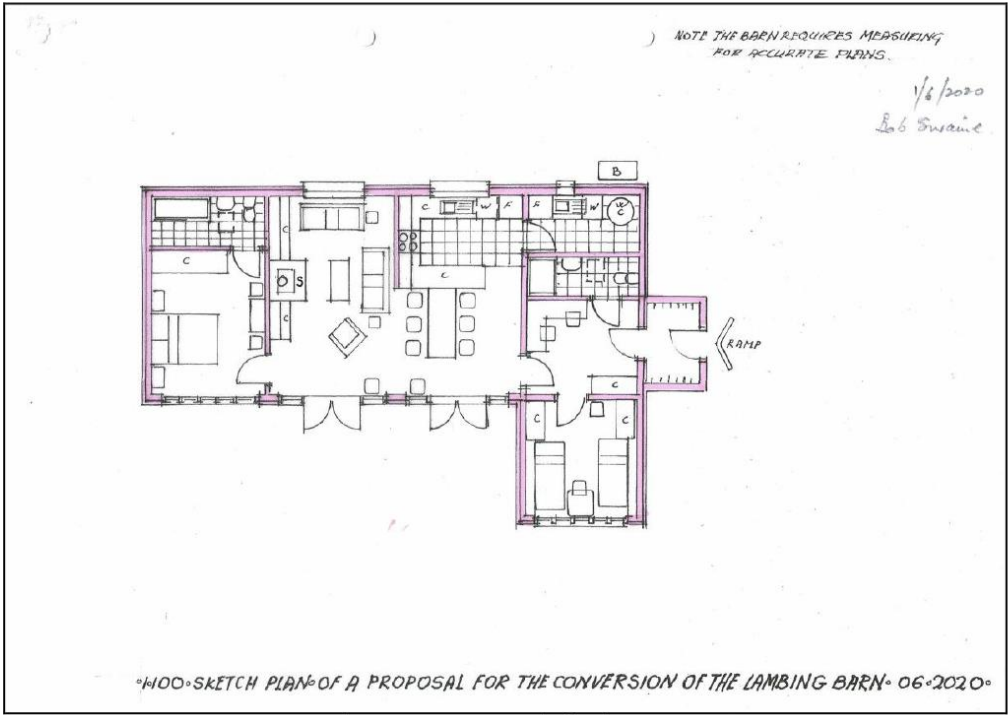


Figure 3: Proposed site layout

4. SOURCES OF FLOODING

4.1 Fluvial

- 4.1.1 The DEFRA Flood Map for Planning and associated data was updated on 25th March 2025 (Figure 4) with pdf guidance entitled *Flood Zones Product Description*. This map together with Appendix E of the SFRA shows that the site is located within the NPPF defined Flood Zone 3 associated with the Cat Ditch.

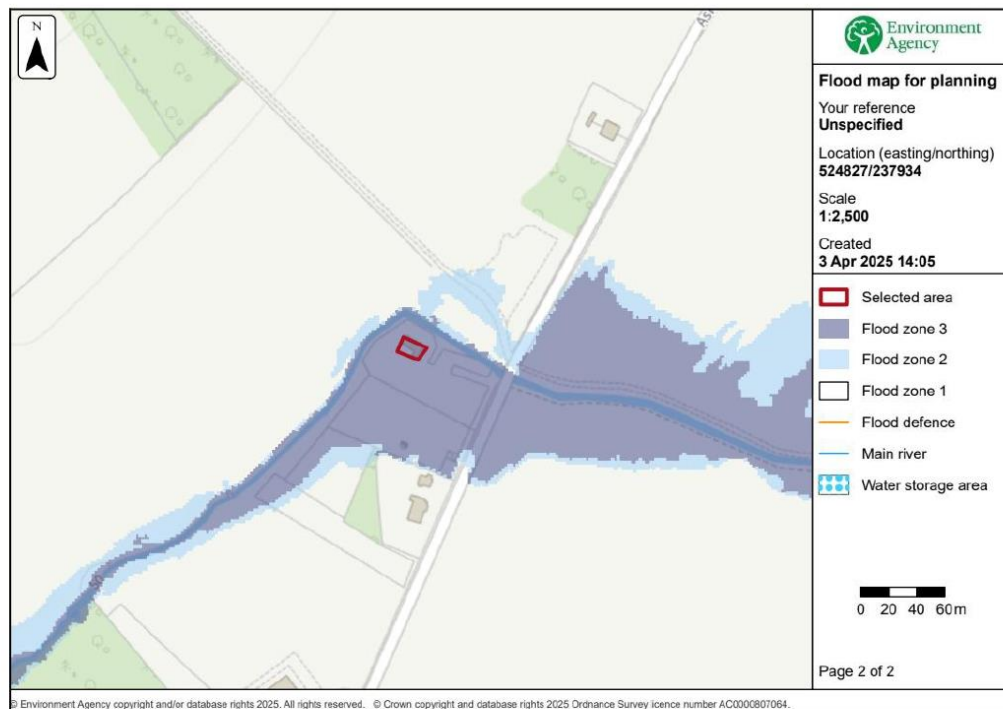


Figure 4: Flood Map for Planning

- 4.1.2 The Environment Agency flood defence information via <https://environment.data.gov.uk/asset-management/index.html> shows that there are no formal raised flood defences protecting the site.

DEFRA Risk of flooding from Rivers and Sea (RoFRS)

- 4.1.3 In the absence of flood modelling, it is considered due to the scale and nature of the proposals the following DEFRA risk of flooding from rivers and sea can be used in order to assess the fluvial flood risk at this location.
- 4.1.4 The DEFRA Risk of flooding from rivers and sea (*RoFRS*) map and associated data was updated on 28th January 2025 with pdf guidance entitled *RoFRS Product Description*. It now supersedes previous datasets and can be viewed at <https://www.gov.uk/check-long-term-flood-risk> and <https://environment.data.gov.uk/explore/96ab4342-82c1-4095-87f1-0082e8d84ef1> with the raw GIS data being available at

<https://environment.data.gov.uk/explore/96ab4342-82c1-4095-87f1-0082e8d84ef1?download=true>.

- 4.1.5 The DEFRA Data Services Platform states that the Risk of Flooding from rivers and sea (RoFRS) map shows the chance of flooding from rivers and the sea taking into account the presence and condition of flood defences
- 4.1.6 The DEFRA Data Services Platform also states that RoFRS is a probabilistic product, meaning that it shows the overall risk, rather than the risk associated with a specific event or scenario. In externally published versions of this dataset, risk is displayed as one of four likelihood bandings:
- High - greater than or equal to 1 in 30 (3.3%) chance of flooding in any given year;
 - Medium - less than 1 in 30 (3.3%) but greater than or equal to 1 in 100 (1%) chance of flooding in any given year;
 - Low - less than 1 in 100 (1%) but greater than or equal to 1 in 1000 year (0.1%) chance of flooding in any given year.
 - Very Low – less than 1 in 1000 year (0.1%) chance of flooding in any given year (also denoted by the mapping as 'Unavailable').
- 4.1.7 The DEFRA Data Services Platform 'Announcements' section states that while the previous RoFRS Depth datasets showed the maximum depth of flooding that could result from a flood with a 0.1%, 1% and 3.3% chance of happening in any given year, the new RoFRS Depth datasets show the annual chance of flooding beyond a specific depth, for depths at intervals from 20cm to 120cm.
- 4.1.8 For example, the 20cm dataset shows a map of likelihood of flooding beyond 20cm depth within the 4 likelihood bands. The depths are as follows:
- 0.2m
 - 0.3m
 - 0.6m
 - 0.9m
 - 1.2m
- 4.1.9 Where the mapping shows an area with no depth results, despite it being located within a risk banding, DEFRA have confirmed that this denotes a flood depth of <0.2m.
- 4.1.10 Information has also been created which indicates the possible impacts of climate change on future risk in line with the guidance at <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances#when-to-use-climate-change-allowance>.
- 4.1.11 For rivers and sea flood risk the mapping considers the fluvial 'Central' allowance for the 2050s epoch (2040-2069), and the coastal 'Higher Central' allowance for 2036-2065 and can be viewed at <https://www.gov.uk/check-long-term-flood-risk> and <https://environment.data.gov.uk/explore/de4079f2-3569-45b2-8009-a00bccc520a1>, with the raw GIS data being available at <https://environment.data.gov.uk/explore/de4079f2-3569-45b2-8009-a00bccc520a1?download=true>.
- 4.1.12 The associated climate change depths within the 4 likelihood bands are the same as the non-climate change depths set out above.

4.1.13 The DEFRA Risk of flooding from rivers and sea (RoFRS) map and associated data (Figures 5, 6, 7 and 8) shows that there is a Low to High flood risk at the site and when accounting for future climate change.

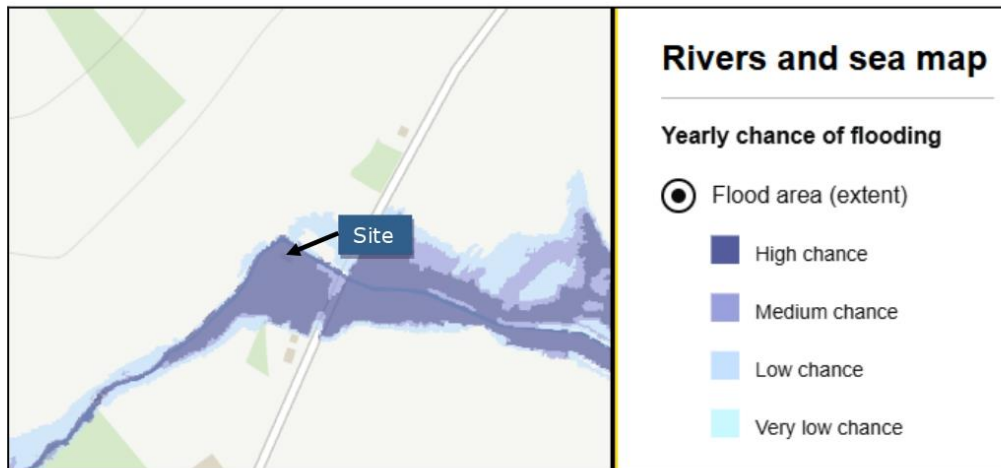


Figure 5: DEFRA Risk of flooding from rivers and sea (RoFRS) map from
<https://www.gov.uk/check-long-term-flood-risk>

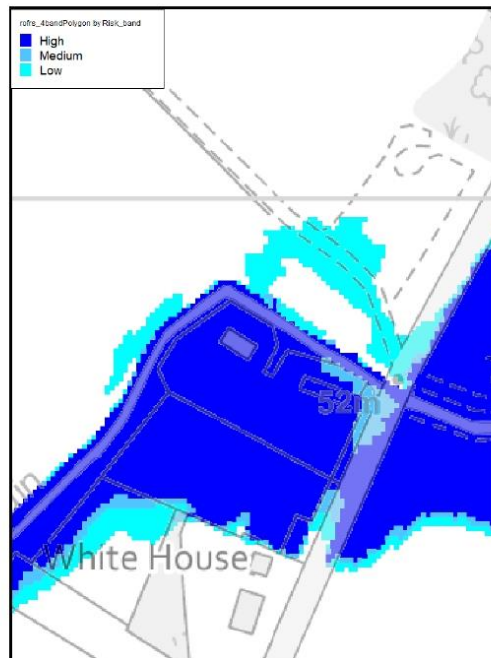


Figure 6: DEFRA Risk of flooding from rivers and sea (RoFRS) map data
<https://environment.data.gov.uk/explore/96ab4342-82c1-4095-87f1-0082e8d84ef1?download=true>

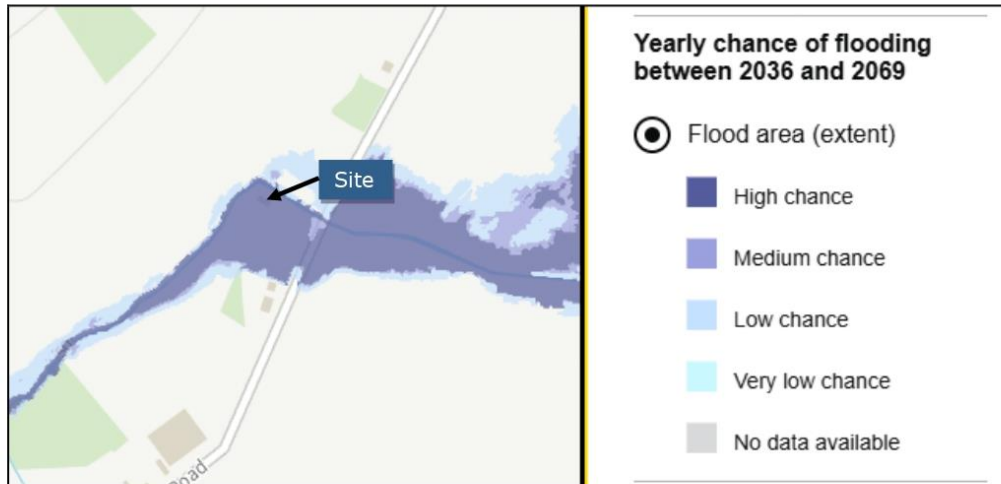


Figure 7: DEFRA Risk of flooding from rivers and sea (RoFRS) map data with climate change from <https://www.gov.uk/check-long-term-flood-risk>

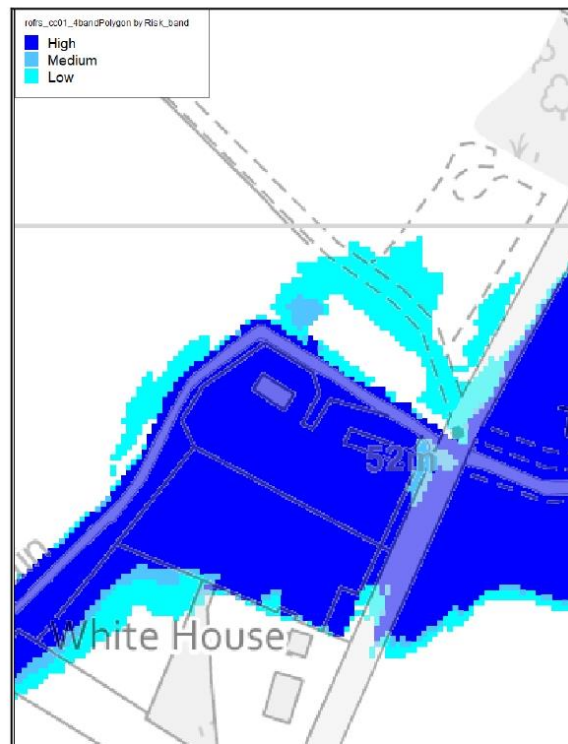


Figure 8: DEFRA Risk of flooding from rivers and sea (RoFRS) map data with climate change from <https://environment.data.gov.uk/explore/de4079f2-3569-45b2-8009-a00bccc520a1?download=true>

- 4.1.14 The depth data indicates that the depth across the existing building would be up to 0.2m (during Low risk events) (Figure 9). By reviewing the LIDAR data it is estimated that the flood level would be up to 52m AOD.

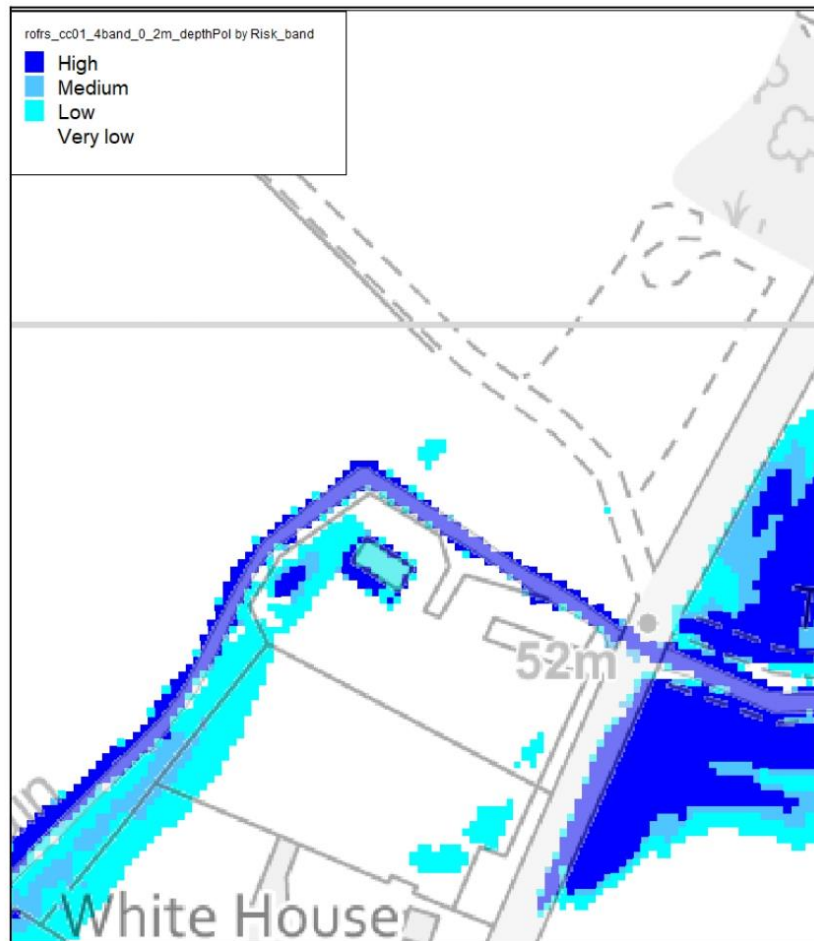


Figure 9: DEFRA Risk of flooding from rivers and sea (RoFRS) 0.2m depth map data with climate change from <https://environment.data.gov.uk/explore/de4079f2-3569-45b2-8009-a00bcc520a1?download=true>

Flood Risk Mitigation

- 4.1.15 Paragraph 004 of the NPPF Planning Practice Guidance states that the first preference is to avoid flood risk by raising floor levels above the design flood level.
- 4.1.16 The proposed ground floor level will be set approximately 0.30m higher than existing ground level and at 52.10m AOD in order to be above the flood level thus providing safe dry refuge and no internal flooding.

Internal Drainage Board

4.1.17 The site is located within the Bedfordshire and River Ivel Internal Drainage Board (IDB) area. The Cat Ditch is identified as being an IDB maintained watercourse.

4.1.18 Information from the IDB's *Policy Statement on Water Level and Flood Risk Management* indicates that through the operation, maintenance and improvement of watercourses and other assets, the Board seeks to achieve a general standard of water level management that enables drainage and irrigation of agricultural land and reduces the flood risk to developed areas.

Flood Warning and Emergency Planning

4.1.19 The site is located within an Environment Agency Flood Alert area 052WAFIVEL - River Ivel in Hertfordshire and Central Bedfordshire.

4.1.20 Sites at risk of fluvial flooding could have a minimum of 2 hours warning before any of the levels of flood warning is issued.

4.1.21 Flood Alerts, Flood Warnings and Severe Flood Warnings are issued to residents and businesses within flood risk areas by the Agency's *Floodline Warnings Direct* (FWD) service. This system is managed by the Environment Agency and dials out a message to the recipient when a particular category of flood warning is being advised. The message is conveyed by a constant ringing of the telephone or can alternatively be communicated to mobile phones and computers. The system functions at all times, issuing flood warnings and alerts in conjunction with announcements on radio and other media. Owners and occupiers of dwellings or businesses thought to be at risk can sign up to the scheme. **The owners are encouraged to confirm details with the Agency and to sign up for these warnings.**

4.1.22 The various flood warning codes can be seen on Figure 10.

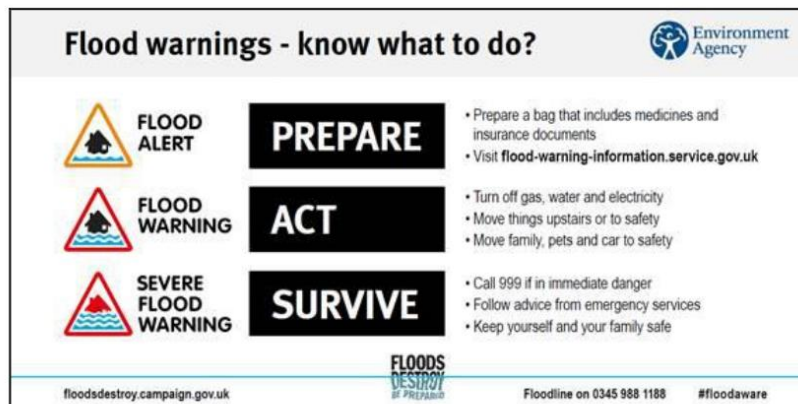


Figure 10: Flood warning codes (Source: Environment Agency)

4.1.23 It is understood that in the event of flooding, evacuation is managed by a multi-agency team in conjunction with the Police. The multi-agency team provides suitable premises for shelter, first aid, refreshments and possible transportation with consideration given to the elderly and vulnerable groups. It is essential that occupants produce robust

Emergency Flood Plans to avoid putting themselves or emergency services at risk and that they do not rely solely on emergency services during the event.

Reducing Vulnerability to the Hazard

- 4.1.24 The Agency aims to provide up to 2 hours notice before the issue of a *Flood Alert* for fluvial events.
- 4.1.25 It is recommended that the occupants liaise with the Agency in order to register with the Agency's Flood Warnings Direct service and ensure that they are aware of the flood risk so that they have the option to escape/evacuate upon receipt of a *Flood Alert* or upon the instruction of the emergency services.
- 4.1.26 The occupants should develop a *Family Flood Plan*. Further guidance is offered in the Environment Agency's guidance document entitled *What to do before, during and after a flood*. The *Family Flood Plan* should consider, for example, information about vital medication needed and a *Flood Kit*.

Table 1: Flood Event Action Plan

Environment Warning Code	Agency Flood	What to do!	Evacuate?
Flood Alert (Flooding Possible. Be aware/prepared! Watch Out). 		- Monitor flood risk through media and Floodline Warnings Direct. - Locate people and inform them of risk. If away from the site make assessment on risk if considering returning to site (i.e. how long it will take to return etc). - Begin to implement Flood Plan. - Gather Flood Kit and provisions in the event that evacuation is not possible. - Consider advice given from emergency services/Environment Agency.	Preferable, although up to occupants discretion. Drive carefully if evacuating as roads may be flooded or closed. If evacuation is not possible people should reside across the building with their flood kit.
Warnings no longer in force (No further flooding is expected in the area. Be careful).		- Return to site upon instruction from emergency services and assess any damage. - Contact insurance company depending on damage caused. - Beware of flood debris. - Do not touch sources of electricity.	Not applicable.

Safe Access/Egress

- 4.1.27 Figure 8 above shows that during climate change events there would be a Low to High risk away from the site and along Ashwell Road adjacent to the site.
- 4.1.28 It is understood from the DEFRA Data Services Platform 'Announcements' section that the previous 'hazard' dataset will be replaced in the future.

4.1.29 Therefore, in the interim, in order to determine the flood hazard, the hazard categories outlined in Table 13.1 of *FD2320/TR2* (Figure 11), which is defined by the depth and velocity of the floodwater and the ability of people to evacuate once flooding occurs, has been used (assuming <0.5 m/s velocity). It should be noted that the white cells shown on Figure 11 denote a *Very low* hazard.

Table 13.1 Danger to people for different combinations of depth and velocity

Velocity (m/s)	Depth of flooding (m)										
	0.05	0.10	0.20	0.30	0.40	0.50	0.60	0.80	1.00	1.50	2.00
0.00											
0.10											
0.20											
0.30											
0.40											
0.50											
0.60											
0.80											
1.00											
1.50											
2.00											
2.50											
3.00											
3.50											
4.00											
4.50											
5.00											

(Source Table 13.1 of FD2320/TR2)

Key:
 Danger for some
 Danger for most
 Danger for all

Figure 11: Hazard Classification

4.1.30 The depth data indicates that during climate change events, the depth along the evacuation route would be $\leq 0.2\text{m}$ as shown on Figure 9 above and Figure 12 below.

4.1.31 Therefore, the flood hazard to people leaving the site would be *Very low* when considering the 0.2m depth interval.

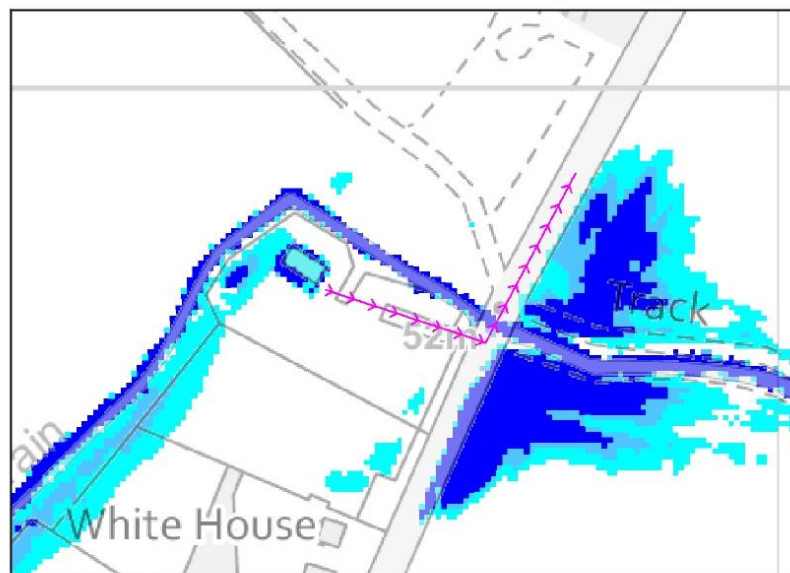


Figure 12: DEFRA Risk of flooding from rivers and sea (RoFRS) 0.2m depth map data with climate change and evacuation route

4.2 Groundwater Flooding

Soil and Geology at the Site

- 4.2.1 It can be seen from the various soil and hydrogeological data, listed in Section 2, that the soils beneath the site comprise clay, silt, sand and gravel.

Groundwater Flooding Potential at the Site

- 4.2.2 The 'Check the long term flood risk for an area in England' at <https://www.gov.uk/check-long-term-flood-risk> states that flooding from groundwater is unlikely in this area.

4.3 Surface Water Flooding and Sewer Flooding

DEFRA Risk of flooding from surface water (RoFSW)

- 4.3.1 The DEFRA Risk of flooding from surface water (RoFSW) map and associated data was also updated on 28th January 2025 with pdf guidance entitled *RoFSW Product Description*. It now supersedes previous datasets and can be viewed at <https://www.gov.uk/check-long-term-flood-risk> and <https://environment.data.gov.uk/explore/b5aaa28d-6eb9-460e-8d6f-43caa71fbe0e> with the raw GIS data being available at <https://environment.data.gov.uk/explore/b5aaa28d-6eb9-460e-8d6f-43caa71fbe0e?download=true>.
- 4.3.2 The DEFRA Data Services Platform states that the Risk of Flooding from Surface Water (RoFSW) map is an assessment of where surface water flooding may occur when rainwater does not drain away through the normal drainage systems or soak into the ground, but lies on or flows over the ground instead.
- 4.3.3 The DEFRA Data Services Platform also states that RoFSW is a probabilistic product, meaning that it shows the overall risk, rather than the risk associated with a specific event or scenario. In externally published versions of this dataset, risk is displayed as one of four likelihood bandings:
- High - greater than or equal to 1 in 30 (3.3%) chance of flooding in any given year;
 - Medium - less than 1 in 30 (3.3%) but greater than or equal to 1 in 100 (1%) chance of flooding in any given year;
 - Low - less than 1 in 100 (1%) but greater than or equal to 1 in 1000 year (0.1%) chance of flooding in any given year.
 - Very Low – less than 1 in 1000 year (0.1%) chance of flooding in any given year (also denoted by the mapping as 'Unavailable').
- 4.3.4 The DEFRA Data Services Platform 'Announcements' section states that while the previous RoFSW Depth datasets showed the maximum depth of flooding from surface water that could result from a flood with a 0.1%, 1% and 3.3% chance of happening in any given year, the new RoFSW Depth datasets show the annual chance of flooding beyond a specific depth, for depths at intervals from 20cm to 120cm.
- 4.3.5 For example, the 20cm dataset shows a map of likelihood of flooding beyond 20cm depth within the 4 likelihood bands. The depths are as follows:
- 0.2m
 - 0.3m
 - 0.6m
 - 0.9m

- 1.2m
- 4.3.6 Where the mapping shows an area with no depth results, despite it being located within a risk banding, DEFRA have confirmed that this denotes a flood depth of <0.2m.
- 4.3.7 Information has also been created which indicates the possible impacts of climate change on future risk in line with the guidance at <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances#when-to-use-climate-change-allowance>.
- 4.3.8 For surface water flood risk the mapping considers the 'Central' allowance for the 2050s epoch (2040-2060) and can be viewed at <https://www.gov.uk/check-long-term-flood-risk> and <https://environment.data.gov.uk/explore/e5b38de2-99b3-44ee-b10c-b244926878ef>, with the raw GIS data being available at <https://environment.data.gov.uk/explore/e5b38de2-99b3-44ee-b10c-b244926878ef?download=true>.
- 4.3.9 The associated climate change depths within the 4 likelihood bands are the same as the non-climate change depths set out above.
- 4.3.10 The DEFRA Risk of flooding from surface water (RoFSW) map and associated data (Figures 13, 14 and 15) shows that there is a Very Low to Low surface water flood risk at the site and when accounting for future climate change.

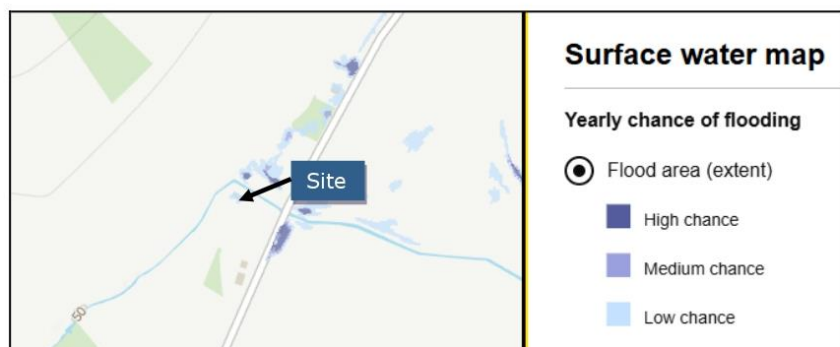


Figure 13: DEFRA Risk of flooding from surface water (RoFSW) map from
<https://www.gov.uk/check-long-term-flood-risk>

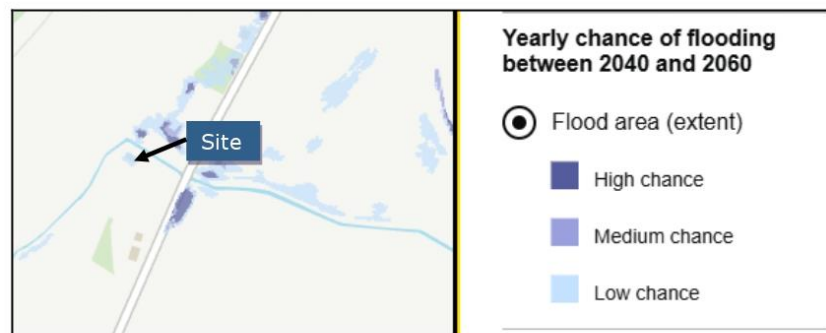


Figure 14: DEFRA Risk of flooding from surface water (RoFSW) map data with climate change from
<https://www.gov.uk/check-long-term-flood-risk>



Figure 15: DEFRA Risk of flooding from surface water (RoFSW) map data with climate change from <https://environment.data.gov.uk/explore/e5b38de2-99b3-44ee-b10c-b244926878ef?download=true>

- 4.3.11 The depth data indicates that the depth across the existing building would be <0.2m (during Low risk events). The proposed ground floor level will be set approximately 0.30m higher than existing ground level and therefore above the flood depth thus providing safe dry refuge and no internal flooding.

Reducing Vulnerability to the Hazard

- 4.3.12 Flood Warnings for surface water flooding do not currently exist, however, the occupants should sign up to the Met Office weather warning system <https://www.metoffice.gov.uk/public/weather/warnings> and safe refuge is available at all times.

Safe Access/Egress

- 4.3.13 Figure 15 above shows that during climate change events there would be a Very Low risk between the site and Ashwell Road as well as along Ashwell Road thus providing safe access/egress.

4.4 Reservoirs, Canals And Other Artificial Sources

- 4.4.1 The failure of man-made infrastructure such as flood defences and other structures can result in unexpected flooding. Flooding from artificial sources such as reservoirs, canals and lakes can occur suddenly and without warning, leading to high depths and velocities of flood water which pose a safety risk to people and property.
- 4.4.2 The 'Check the long term flood risk for an area in England' at <https://www.gov.uk/check-long-term-flood-risk> states that flooding from reservoirs is unlikely in this area.

5. CONCLUSIONS

- It is the Client's intention to change the use of the building to a residential dwelling. The proposed ground floor level will be set approximately 0.30m higher than existing ground level and at 52.10m AOD.
- The site is located within the NPPF Flood Zone 3 associated with the IDB maintained Cat Ditch. The Client has stated that the land has never flooded in local living memory, nor that from their 50+ years personal experience. It is understood that the water in the ditch, during the very worst storms, has never come anywhere close to within 6 feet from the top of the bank.
- There is a low groundwater flood risk and low risk from reservoirs.
- Analysis of the updated DEFRA Risk of flooding from rivers and sea (*RoFRS*) map and associated data indicates that there is a Low to High flood risk at the site and when accounting for future climate change. The depth data indicates that the depth across the site would be up to 0.2m (during Low risk events) and it is estimated that the flood level would be up to 52m AOD.
- The DEFRA Risk of flooding from surface water (*RoFSW*) map and associated data shows that there is a Very Low to Low surface water flood risk at the site and when accounting for future climate change. The depth data indicates that the depth would be <0.2m (during Low risk events).
- The ground floor level will be set approximately 0.30m higher than existing ground level and above the flood level thus providing safe dry refuge and no internal flooding. Therefore the site is suitable for conversion to a residential dwelling.
- A warning and evacuation strategy has been developed within this assessment. It is proposed that the occupants register with the Agency's *Flood Warnings Direct* and prepare a *Family Flood Plan*.
- Safe access/egress is available at all times.

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