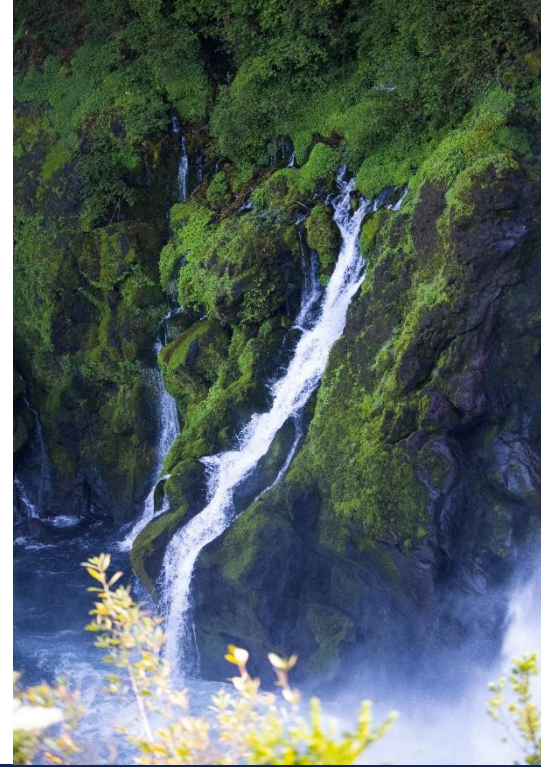




Flood Risk Assessment AEG8103_SP5_Downton_01

Site Address: The Cabin
Hyde Lane
Downton
Wiltshire
SP5 3NE

UK Experts in Flood Modelling, Flood Risk
Assessments, and Surface Water Drainage Strategies



Document Issue Record

Project: Flood Risk Assessment

Prepared for: David Dorrington

Reference: AEG8103_SP5_Downton_01

Site Location: The Cabin, Hyde Lane, Downton, Wiltshire, SP5 3NE

Issue	Date	Author	Check	Auth.	Comments
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Table of Contents

Summary	1
1. Introduction.....	3
Site Overview.....	3
Planning Policy and Guidance.....	6
2. Planning Policy.....	7
National Planning Policy Framework (NPPF)	7
Local Plan.....	10
Sequential and Exception Tests	10
Summary.....	12
3. Consultation and Review.....	13
Documents and Online Mapping.....	13
4. Sources of Flood Risk.....	15
Fluvial and Tidal	15
Canals	18
Pluvial.....	19
Reservoirs.....	21
Groundwater.....	22
Sewers.....	24
5. Flood Risk Mitigation	26
Groundwater.....	26
Other Sources.....	27
Increase to Flood Risk Elsewhere.....	27
Flood Warnings.....	27

6. Conclusions.....28

Appendix A - Development Proposals.....30

Summary

Development Description	Existing	Proposed
Development Type	Residential dwelling	Proposed replacement dwelling covering the same footprint as existing to replace original dwelling which has fallen into disrepair
EA Vulnerability Classification	More Vulnerable	More Vulnerable
Ground Floor Level	The LiDAR data shows the ground elevation of the site varies between approximately 36.4m AOD and 37.3m AOD	No change
Level of Sleeping Accommodation	First Floor	First Floor
Surface Water Drainage	N/A ¹	Recommended that small scale SuDS are implemented to reduce run-off from the proposed dwelling. Such as rainwater planters and water butts at the base of downpipes.
Site Size	c.770m ²	No change
Risk to Development	Summary	Comment
EA Flood Zone	Flood Zone 1	Low risk from fluvial and pluvial
Flood Source	Groundwater	Wiltshire Strategic Flood Risk Assessment (SFRA, 2024) mapping indicates that the site is within an area where "there is a risk of groundwater flooding to both surface and subsurface assets".
SFRA Available	Wiltshire Council Level 1 Strategic Flood Risk Assessment (Wiltshire Council, 2024)	

Management Measures	Summary	Comment
Ground floor level above extreme flood levels	Yes	Low risk from fluvial and pluvial Winter groundwater level shown to be 1.5m below site ground level, as per local BGS borehole.
Safe Access/Egress Route	Yes	Low risk from fluvial and pluvial in the surrounding area. Replacement of existing dwelling, thus access/egress will remain as per existing.
Flood Resilient Design	Yes	See details in section 5
Flood Warning and Evacuation Plan	N/A ¹	Recommended that occupier monitor Met Office Weather Warnings for extreme weather events.
Offsite Impacts	Summary	Comment
Displacement of floodwater	Negligible	The site is located within Flood Zone 1, as well as no increase in built footprint as result of development, thus no increase in displacement.
Increase in surface run-off generation	Negligible	No increase in built footprint as result of development. Recommended that small scale SuDS are implemented to reduce run-off from the proposed dwelling. Such as rainwater planters and water butts at the base of downpipes. Thus providing betterment.
Impact on hydraulic performance of channels	None	Closest watercourse to the development is c.600m from the site

¹ not required for this assessment

² data not available.

1. Introduction

- 1.1. Aegaea were commissioned by David Dorrington to undertake a Flood Risk Assessment (FRA) to facilitate a planning application for the proposed development. This FRA has been prepared in accordance with the requirements set out in the National Planning Policy Framework (NPPF) and the associated Planning Practice Guidance.
- 1.2. This FRA is intended to support a full planning application and as such the level of detail included is commensurate and subject to the nature of the proposals.

Site Overview

- 1.3. The site of the proposed development is The Cabin, Hyde Lane, Downton, Wiltshire, SP5 3NE (Figure 1).

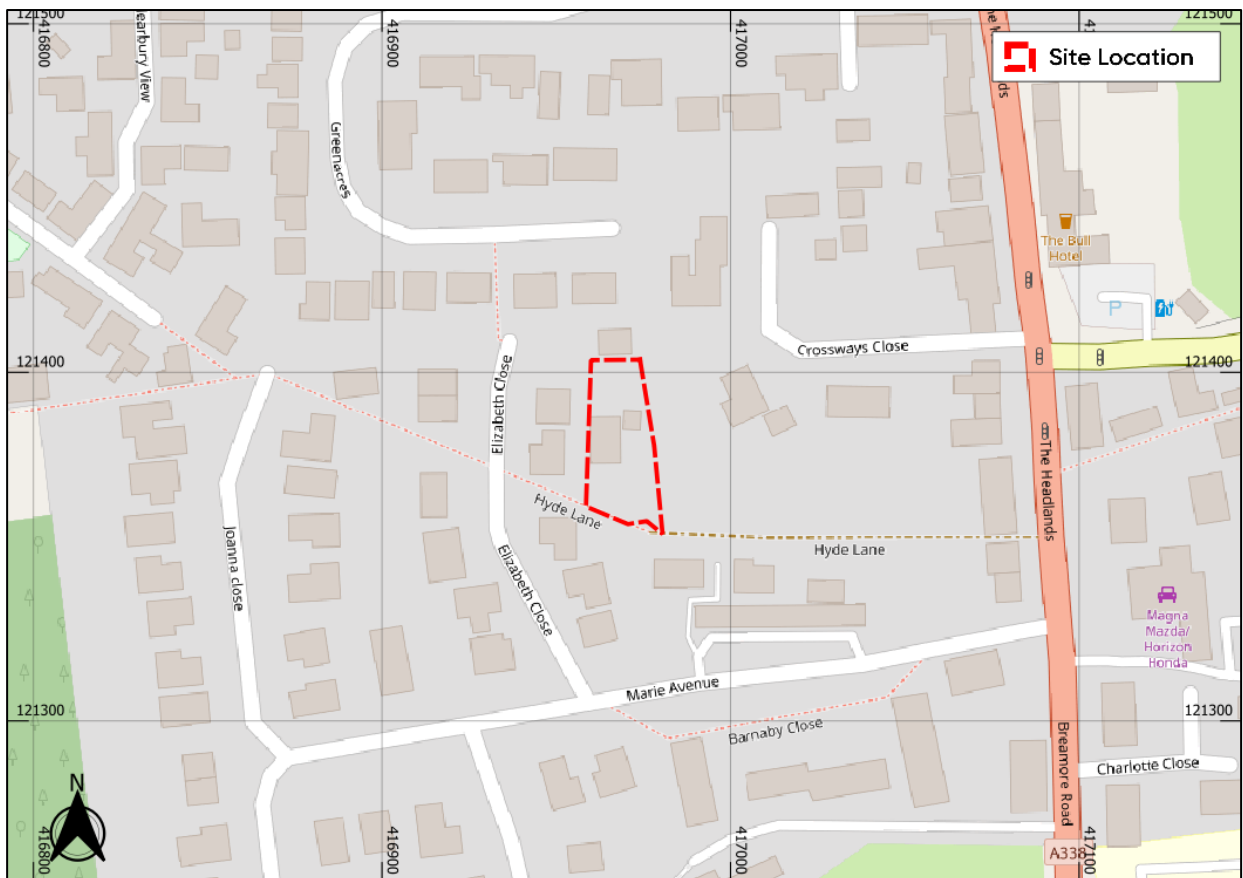


Figure 1: Site Location (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © <https://www.openstreetmap.org> and contributors. Contains public sector information licensed under the Open Government Licence v3.0)

- 1.4. The client has submitted a planning application for a proposed replacement dwelling covering the same footprint as existing to replace the existing which has fallen into disrepair (Wiltshire Ref PL/2025/01334). Proposed development plans are attached within Appendix A.
- 1.5. In the absence of a topographical survey, Environment Agency Light Detection and Ranging (LiDAR) data Digital Terrain Model has been used to review the topography of the site. The LiDAR data shows the ground elevation of the site varies between approximately 36.4m AOD (metres Above Ordnance Datum) and 37.3m AOD (Figure 2). Analysis of topographic levels indicates that the site generally slopes with a fall to the south. Proposed dwelling is to be re-built at the same location as existing, c.37.0m AOD.

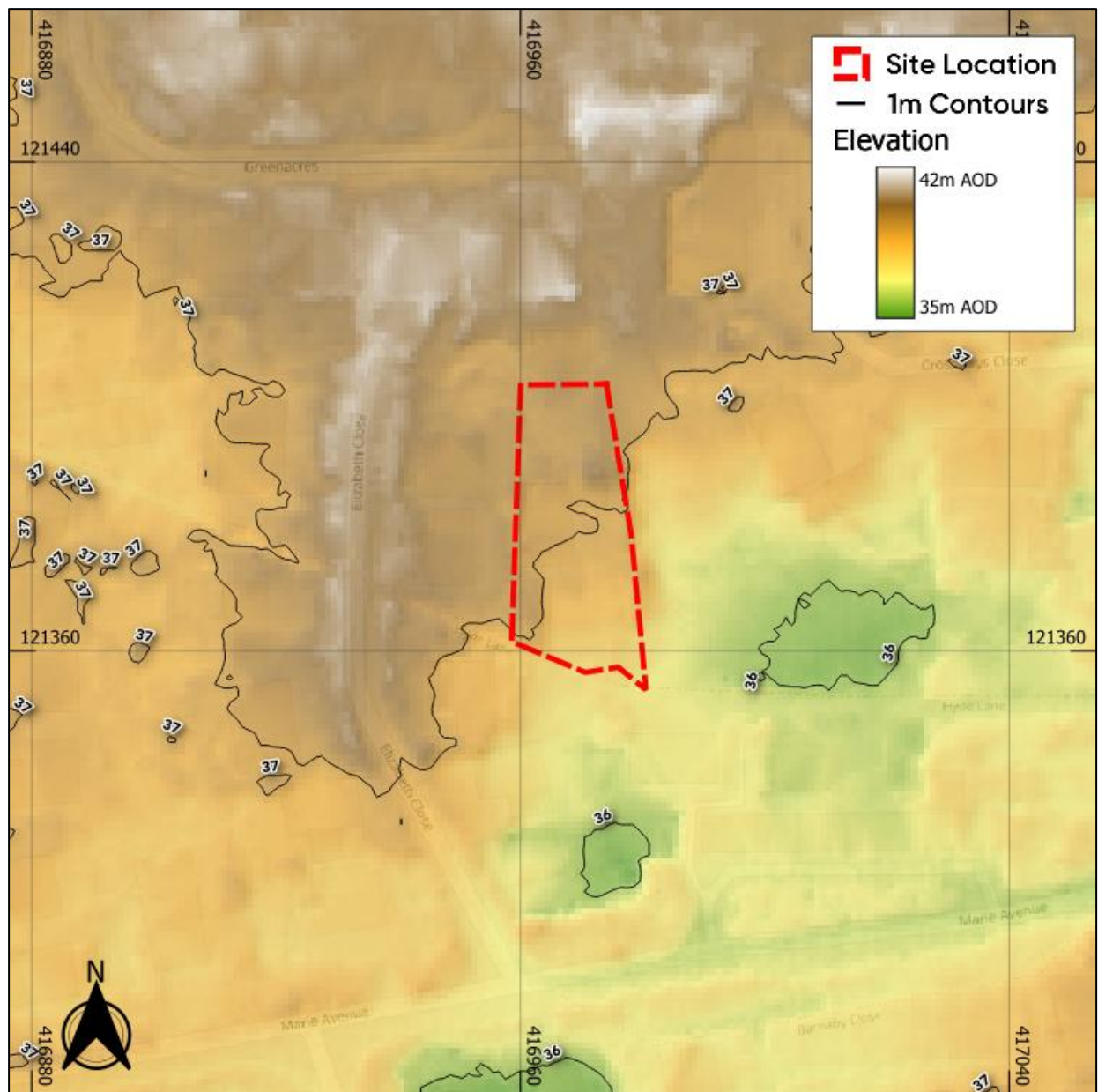


Figure 2: Site Topography (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © <https://www.openstreetmap.org> and contributors. Contains public sector information licensed under the Open Government Licence v3.0)

- 1.6. Wiltshire Council is the Local Planning Authority (LPA) for the site and also the designated Lead Local Flood Authority (LLFA). The site sits within the Environment Agency's Wessex region.

Planning Policy and Guidance

1.7. UK government planning guidance states¹ that an FRA is required for developments which are:

- *in flood zone 2 or 3 including minor development and change of use*
- *more than 1 hectare (ha) in flood zone 1*
- *less than 1 ha in flood zone 1, including a change of use in development type to a more vulnerable class (for example from commercial to residential), where they could be affected by sources of flooding other than rivers and the sea (for example surface water drains, reservoirs)*
- *in an area within flood zone 1 which has critical drainage problems as notified by the Environment Agency*

1.8. Wiltshire Strategic Flood Risk Assessment (SFRA, 2024) mapping indicates that the site is within an area where *"there is a risk of groundwater flooding to both surface and subsurface assets. Groundwater may emerge at significant rates and has the capacity to flow overland and/or pond within any topographic low spots"*. As such, we understand that an FRA is required to support the planning application.

1.9. The objective of this FRA is to demonstrate that the proposals are acceptable in terms of flood risk. This report summarises the findings of the study and specifically addresses the following issues in the context of the current legislative regime:

- Fluvial/tidal flood risk
- Surface water flood risk
- Risk of flooding from other sources

¹ <https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications#when-you-need-an-assessment>

2. Planning Policy

- 2.1. Inappropriate development in a flood risk area could pose significant risk in terms of personal safety and damage to property for the occupiers of the development or for people elsewhere. The approach taken in the assessment of flood risk at the planning stage is set out in national, regional, and local planning policy and associated guidance. This section summarises the key policies and guidance relevant to the proposed development.

National Planning Policy Framework (NPPF)

- 2.2. The National Planning Policy Framework² (NPPF) (MHCLG, 2024) which includes UK Government policy on development and flood risk states:

170. Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future). Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere.

176. Applications for some minor development and changes of use should also not be subject to the sequential test, nor the exception test [set out below], but should still meet the requirements for site-specific flood risk assessments set out in footnote 63.

181. When determining any planning applications, local planning authorities should ensure that flood risk is not increased elsewhere. Where appropriate, applications should be supported by a site-specific flood-risk assessment. Development should only be allowed in areas at risk of flooding where, in the light of this assessment (and the sequential and exception tests, as applicable) it can be demonstrated that:

- a) within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location;*

² <https://www.gov.uk/guidance/national-planning-policy-framework>, last updated Dec 2024

- b) the development is appropriately flood resistant and resilient such that, in the event of a flood, it could be quickly brought back into use without significant refurbishment;*
- c) it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate;*
- d) any residual risk can be safely managed; and*
- e) safe access and escape routes are included where appropriate, as part of an agreed emergency plan.*

2.3. Footnote 63 of the NPPF states:

A site-specific flood risk assessment should be provided for all development in Flood Zones 2 and 3. In Flood Zone 1, an assessment should accompany all proposals involving: sites of 1 hectare or more; land which has been identified by the Environment Agency as having critical drainage problems; land identified in a strategic flood risk assessment as being at increased flood risk in future; or land that may be subject to other sources of flooding, where its development would introduce a more vulnerable use.

2.4. Flood Zones in England are defined as follows:

Table 1: Flood Zone Definitions

Flood Zone	Definition
Zone 1 Low Probability	Land having less than 1 in 1,000 annual probability of river or sea flooding (all land outside Zones 2 and 3).
Zone 2 Medium Probability	Land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding; or land having between a 1 in 200 and 1 in 1,000 annual probability of sea flooding.
Zone 3a High Probability	Land having a 1 in 100 or greater annual probability of river flooding; or Land having a 1 in 200 or greater annual probability of sea flooding.
Zone 3b The Functional Floodplain	This zone comprises land where water from rivers or the sea has to flow or be stored in times of flood. The identification of functional floodplain should take account of local circumstances and not be defined solely on rigid probability parameters. Functional floodplain will normally comprise: land having a 3.3% or greater annual probability of flooding, with any existing flood risk management infrastructure operating effectively; or land that is designed to flood (such as a flood attenuation scheme), even if it would only flood in more extreme events (such as 0.1% annual probability of flooding). Local planning authorities should identify in their Strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the Environment Agency. (Not separately distinguished from Zone 3a on the Flood Map)

- 2.5. An FRA should be appropriate to the scale, nature, and location of the development. It should identify and assess the risk from all sources of flooding to and from the development and demonstrate how any flood risks will be managed over the lifetime of the development.
- 2.6. An assessment of hydrological impacts should be undertaken, including to surface water runoff and impacts to drainage networks in order to demonstrate how flood risk to others will be managed following development and taking climate change into account.

Local Plan

- 2.7. The Local Plan prepared by the Local Planning Authority, Wiltshire Council, sets out the policies for development in the local area.
- 2.8. The Core Strategy³ (2015) prepared by the Local Planning Authority, Wiltshire Council, sets out the policies for development in the local area. Core Strategy Policy 67 Flood Risk outlines the requirements for new development within the area. It states:

Development proposed in Flood Zones 2 and 3 as identified within the Strategic Flood Risk Assessment will need to refer to the Strategic Housing Land Availability Assessment when providing evidence to the local planning authority in order to apply the sequential test in line with the requirements of national policy and established best practice. All new development will include measures to reduce the rate of rainwater run-off and improve rainwater infiltration to soil and ground (sustainable urban drainage) unless site or environmental conditions make these measures unsuitable.

Sequential and Exception Tests

- 2.9. The Sequential and Exception Tests are applied in specific cases defined by UK Government policy. Their purpose is to drive development to areas of low flood risk and to support developments which improve flood risk for developments in areas at risk of flooding.

Sequential Test

- 2.10. This FRA demonstrates that as a result of the development the replacement dwelling will be at a lower flood risk than existing property, due to proposed mitigation methods providing a betterment on existing situation.
- 2.11. Suggested mitigation will lower the flood risk to the development, as well as providing a betterment on the existing situation. Therefore, as per paragraph 175 of the NPPF, a sequential

³ <https://www.wiltshire.gov.uk/planning-policy-core-strategy>

approach to the site layout has been adopted and therefore there is no need to implement the Sequential Test.

Exception Test

- 2.12. The Exception Test is applied to sites based on the Flood Zone and the nature of the development. The proposed development is classed as 'More Vulnerable' in line with government development use classes.
- 2.13. The Flood Risk Vulnerability Classification table⁴ provided below in Table 2 shows which vulnerabilities are appropriate in each Flood Zone.
- 2.14. The proposed development sits wholly within Flood Zone 1 and the proposed change of use is to 'More Vulnerable'. Table 2 shows Flood Zone 1 is an appropriate location for 'More Vulnerable' uses without the need for an Exception Test.

Table 2: Flood risk vulnerability and flood zone 'incompatibility'

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

⁴ <https://www.gov.uk/guidance/flood-risk-and-coastal-change#table2>

Summary

- 2.15. This flood risk assessment has been prepared with due consideration to the above local and national policy.

3. Consultation and Review

Documents and Online Mapping

- 3.1. Local Governments and Lead Local Flood Authorities provide documents which contain data and policies on flood risk and new development in their areas. These documents are introduced and briefly summarised below. For the purposes of this FRA, these documents have been reviewed for relevant information and any relevant data is discussed within the appropriate sub heading of this report.
- 3.2. The following sources of information have been reviewed for this assessment:
- Flood Map for Planning on the Environment Agency website⁵
 - Long Term Flood Risk Information on the Environment Agency website⁶
 - National Planning Policy Framework (NPPF) (Department for Levelling Up, Housing and Communities, 2023)
 - Planning Practice Guidance - Flood Risk and Coastal Change (Department for Levelling Up, Housing and Communities, 2022)
 - Geoindex Onshore (British Geological Survey, 2023)⁷
 - Wiltshire Core Strategy (2015)⁸
 - Wiltshire SFRA Web Mapping (2021)⁹
 - Preliminary Flood Risk Assessment (Wiltshire Council, 2011)¹⁰

⁵ <https://flood-map-for-planning.service.gov.uk/>

⁶ <https://www.gov.uk/check-long-term-flood-risk>

⁷ <https://www.epsom-ewell.gov.uk/sites/default/files/documents/residents/planning/planning-policy/Core%20Strategy%202007.pdf>

⁸ <https://www.wiltshire.gov.uk/media/372/Wiltshire-Core-Strategy-adopted-2015/pdf/Wcs.pdf?m=637099399373530000>

⁹ <https://wiltscouncil.maps.arcgis.com/apps/webappviewer/index.html?id=28c00215d87b468a9a0cd79c63d3d270>

¹⁰ https://www.wiltshire.gov.uk/media/203/Wiltshire-preliminary-flood-risk-assessment/pdf/Flood_Risk_Assessment_-_Appendix_1.pdf

- Wiltshire Council Level 1 Strategic Flood Risk Assessment (Wiltshire Council, 2024)¹¹
- Wiltshire Local Flood Risk Management Strategy (Wiltshire Council, 2015)¹²

Preliminary Flood Risk Assessment (PFRA)

- 3.3. The PFRA, published in 2011, is a high-level appraisal of flood risk across Lead Local Flood Authority Wiltshire Council. The flood risk from all sources, including fluvial, surface water, groundwater, and surcharged sewers is evaluated. It is the basis upon which the Local Flood Risk Management Strategy is produced.
- 3.4. The PFRA summarises historical flood incidents in Wiltshire Council. The site is not recorded as having been affected by any flood event.

Strategic Flood Risk Assessment (SFRA)

- 3.5. The SFRA, published in 2024, provides the evidence base for the Local Planning Authority Wiltshire Council Local Plan and guidance for consideration when determining planning applications. The SFRA seeks to place new development into areas of lower flood risk taking into account current flood risk, future flood risk, and the effect a proposed development would have on the risk of flooding.
- 3.6. The SFRA mapping provided by Wiltshire Council has been used throughout production of this report as a source of information, particularly pertaining to historical flood incidents.

Local Flood Risk Management Strategy (LFRMS)

- 3.7. The Local Flood Risk Management Strategy sets out roles and responsibilities for flood risk management, assesses the risk of flooding in the area, where funding can be found to manage flood risk, and the policies, objectives, and actions of the Lead Local Flood Authority.
- 3.8. The Wiltshire Council LFRMS is used within this report to identify any flood management infrastructure and historical incidences of flooding.

¹¹ https://www.wiltshire.gov.uk/media/14497/SD67-Wiltshire-Level-1-Strategic-Flood-Risk-Assessment-2024/pdf/SD67_Wiltshire_Level_1_Strategic_Flood_Risk_Assessment_2024.pdf?m=1733141632550

¹² <https://cms.wiltshire.gov.uk/documents/s83254/Appendix%201%20-%20Strategy.pdf>

4. Sources of Flood Risk

Fluvial and Tidal

- 4.1. Flooding from watercourses arises when flows exceed the capacity of the channel, or where a restrictive structure is encountered, resulting in water overtopping the banks into the floodplain.
- 4.2. Tidal flooding occurs when a high tide and high winds combine to elevate sea levels. An area behind coastal flood defences can still flood if waves overtop the defences or break through them.

Main Rivers and Ordinary Watercourses

- 4.3. The River Avon and associated channels (inc. River Nadder) are located c.600m east of the site and are classified as EA main rivers.
- 4.4. There are no other waterbodies in the vicinity of the site, according to OS Mapping.

EA Flood Map for Planning

- 4.5. The EA Flood Map for Planning shows the site is located with Flood Zone 1 (Figure 3).
- 4.6. Flood Zone 1 shows land having less than 1 in 1,000 annual probabilities of river and tidal flooding (all land outside Zones 2 and 3).



Figure 3: EA Flood Map for Planning (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © <https://www.openstreetmap.org> and contributors. Contains public sector information licensed under the Open Government Licence v3.0)

- 4.7. The site and proposed dwelling are shown to be in the 'unavailable' extent of the Flood Zones plus climate change (August 2025 Update), meaning that the relevant flood model has not been undertaken in the area surrounding the site (Figure 4).
- 4.8. The Flood Zone plus climate change dataset shows how Flood Zones could increase with climate change over the next century, ignoring the benefits of any existing flood defences. The 'Central' allowance for the 2080s epoch (2070-2125) for risk of flooding from rivers has been used to estimate Flood Zones extents.

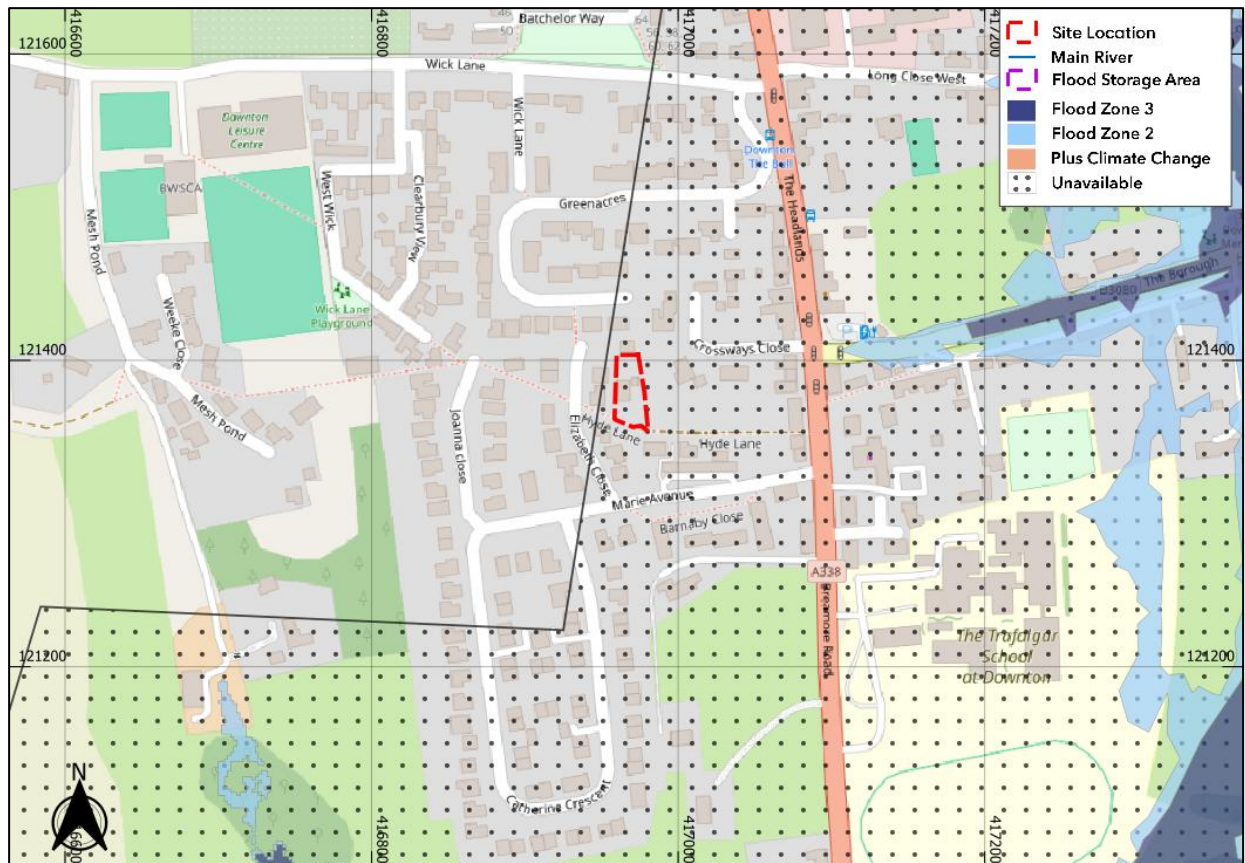


Figure 4: EA Flood Map for Planning plus climate change (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © <https://www.openstreetmap.org> and contributors. Contains public sector information licensed under the Open Government Licence v3.0)

Historical Flooding

- 4.9. According to the EA Recorded and Historical Flood Mapping, there has been no recorded historical flood events within or in the vicinity of the site (Figure 5).

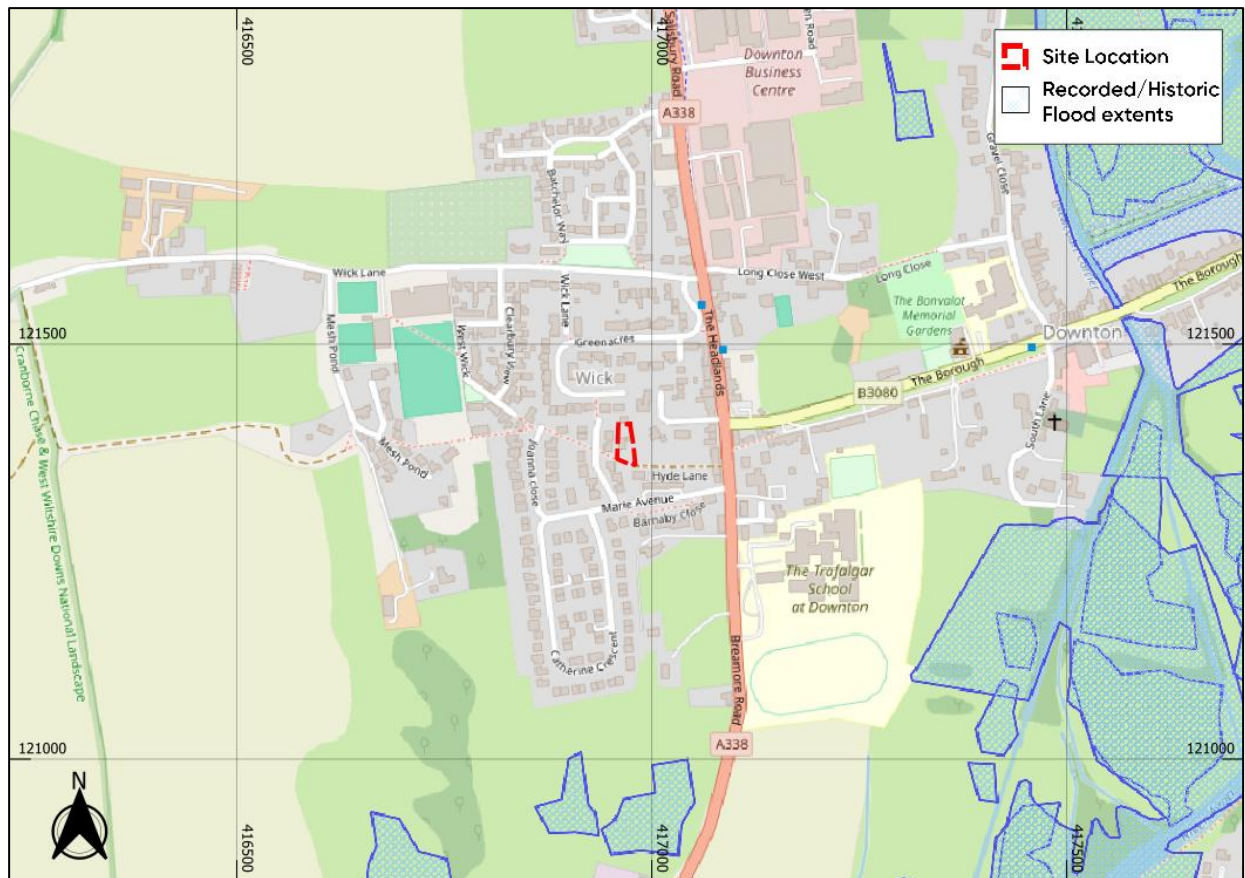


Figure 5: EA Historic Flood Mapping (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © <https://www.openstreetmap.org> and contributors. Contains public sector information licensed under the Open Government Licence v3.0)

Fluvial and Tidal Risk Summary

- 4.10. Based on the information above the site is considered to be at a low risk of fluvial and tidal flooding.

Canals

- 4.11. The Canal and River Trust (CRT) generally maintains canal levels using reservoirs, feeders, and boreholes and manages water levels by transferring it within the canal system.
- 4.12. According to CRT mapping¹³ there are no canals identified within 1km of the site.

¹³ <https://canalrivertrust.org.uk/canals-and-rivers>

4.13. The risk of flooding to this site from canals is considered to be low.

Pluvial

4.14. Pluvial flooding can occur during prolonged or intense storm events when the infiltration potential of soils, or the capacity of drainage infrastructure is overwhelmed leading to the accumulation of surface water and the generation of overland flow routes.

4.15. The new National Flood Risk Assessment (NaFRA2), published in Jan 2025, has updated the Risk of Flooding from Surface Water (RoFSW) products which show the chance of flooding from surface water to areas of land.

4.16. The RoFSW products are 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. It includes information about flooding extents and depths including the potential impact of climate change on flood risk, based on the latest UK Climate Projections (UKCP18).

4.17. Risk is displayed as one of three likelihood categories:

- High - greater than or equal to 1 in 30 (3.3%) chance of flooding in any 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 (0.1%) chance of flooding in any given year.

4.18. The new RoFSW depth mapping shows the annual chance of flooding (based on the three risk categories listed above) beyond a specific depth, for depths at the following intervals from 20cm to 120cm:

- 0.2m, 0.3m, 0.6m, 0.9m, 1.2m

4.19. As well as present day risk of flooding from surface water, climate change scenarios have been produced to indicate the predicted impacts of climate change on future flood risk. The climate change allowances are based on the latest UK Climate Projections (UKCP18) from the Met Office, using the Representative Concentration Pathway (RCP) 8.5. A near-term epoch (2040 – 2060 “2050s” epoch) and central allowances are being used initially, to support short and medium-term decisions informed by the highest flood likelihood projections.

RoFSW Present Day Scenario

- 4.20. The EA Online 'Flood Risk from Surface Water' map (Jan 2025) indicates that site is located outside all at pluvial flood risk areas (Figure 6).

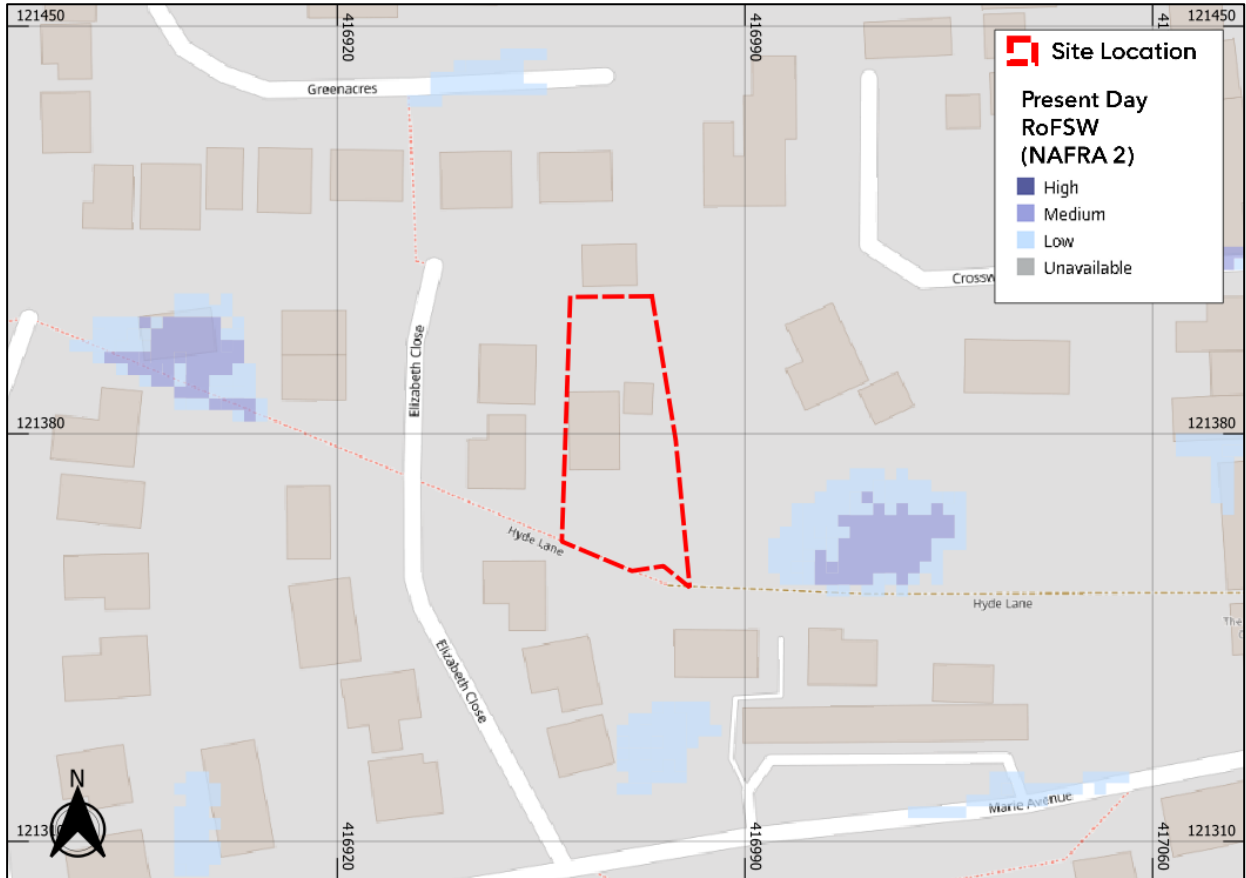


Figure 6: EA Present Day Surface Water Flood Risk Mapping (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © <https://www.openstreetmap.org> and contributors. Contains public sector information licensed under the Open Government Licence v3.0)

- 4.21. Analysis of the present day RoFSW flood depth map for likelihood of flood depths exceeding 0.2m shows the site is not impacted, as well as all other depth intervals (0.2m, 0.3m, 0.6m, 0.9m, 1.2m).

RoFSW Climate Change Scenario

- 4.22. The 'Flood Risk from Surface Water – Climate Change' map indicates that the site is shown to be located outside all at risk areas (Figure 7).

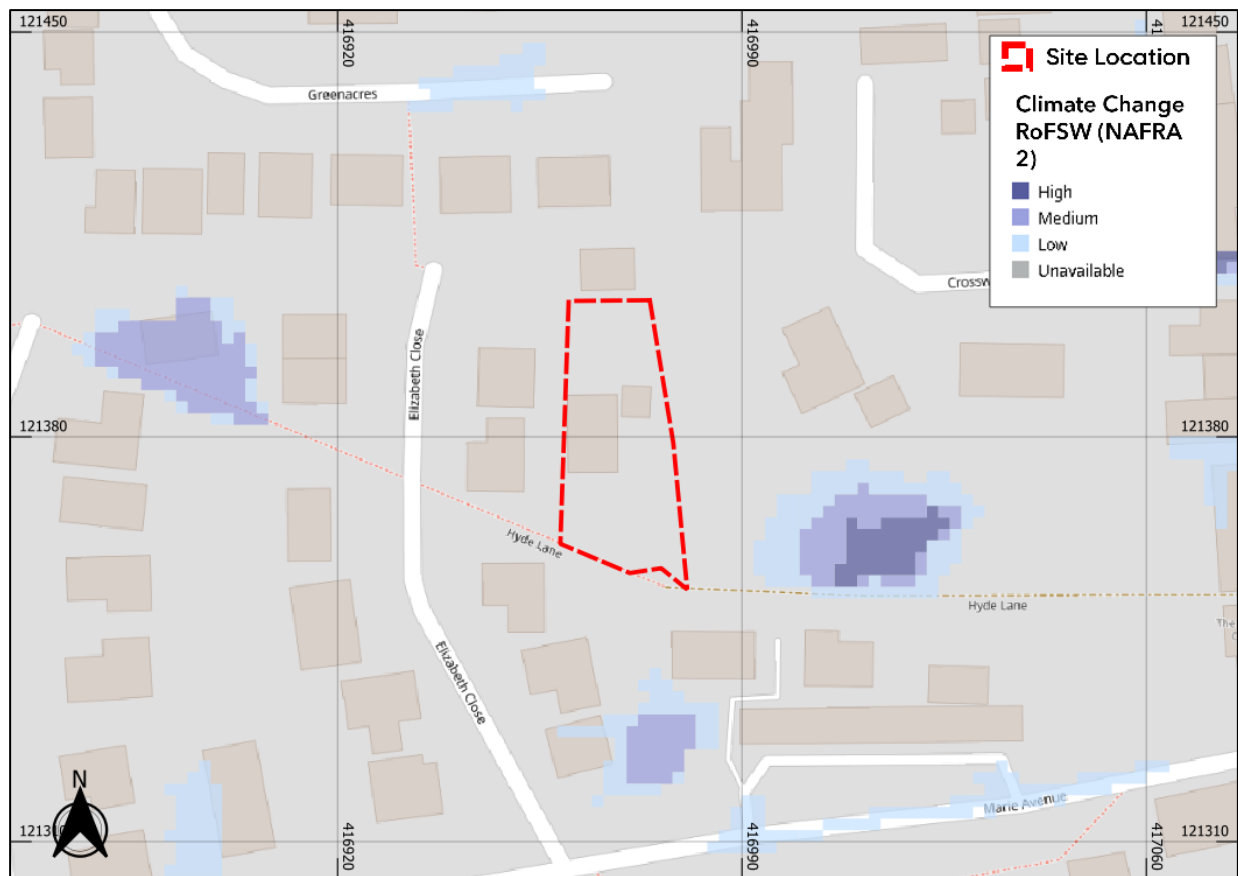


Figure 7: EA Climate Change Surface Water Flood Risk with Climate Change Mapping (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © <https://www.openstreetmap.org> and contributors. Contains public sector information licensed under the Open Government Licence v3.0)

- 4.23. Analysis of the climate change RoFSW flood depth map for likelihood of flood depths exceeding over all depth intervals (0.2m, 0.3m, 0.6m, 0.9m, 1.2m), shows the site is not affected.
- 4.24. Overall, the risk of flooding from pluvial sources to the proposed dwelling can be considered low.

Reservoirs

- 4.25. Large waterbodies or reservoirs that have walls built above the surrounding ground level pose a risk of flooding. Walls could fail due to old age, accident, or because excess flood water has been added to the reservoir. Although a breach is unlikely the consequences would be significant, leading to rapid inundation of the downstream floodplain.
- 4.26. According to the EA's Flood Risk from Reservoirs mapping the site is outside flood extents in the event of reservoir flooding (Figure 8).

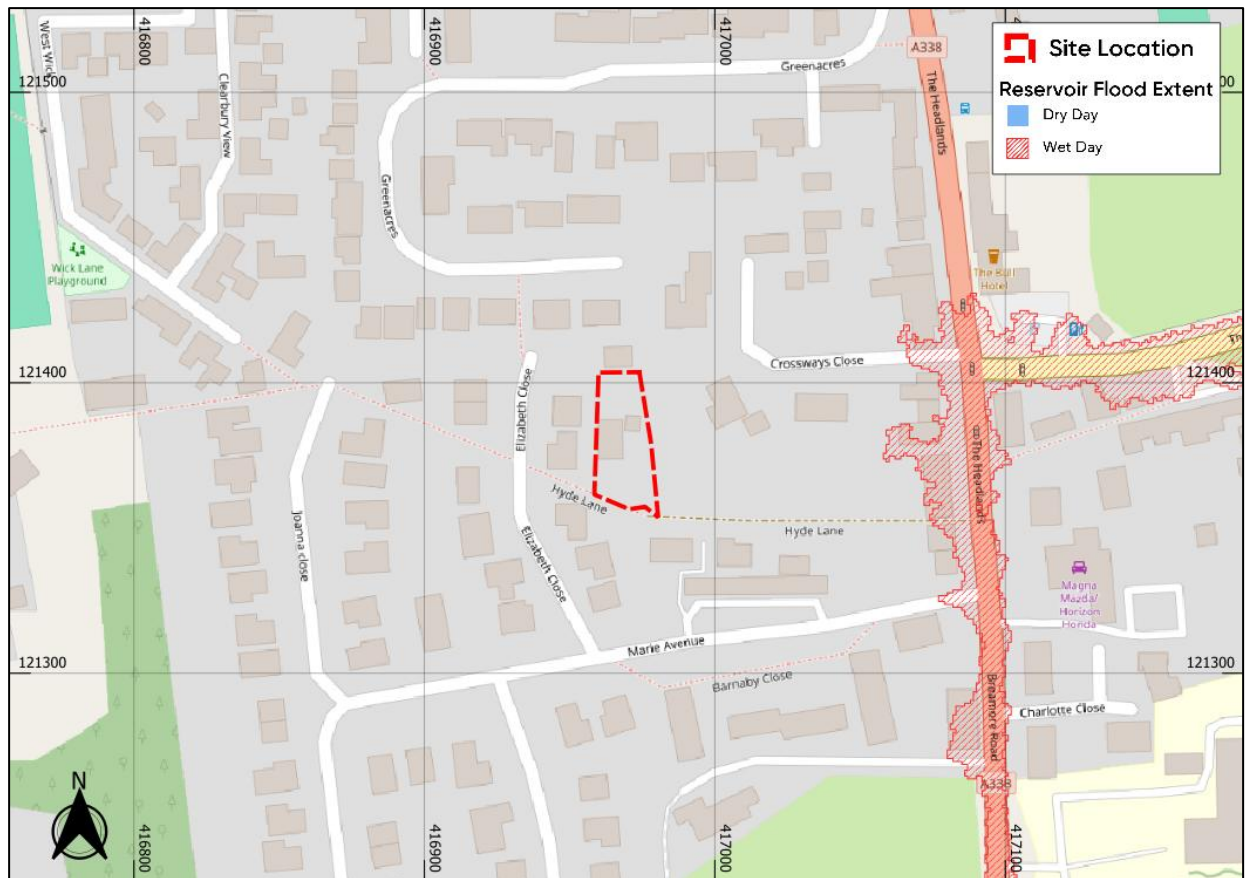


Figure 8: EA Reservoir Flood Risk Mapping (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). ©<https://www.openstreetmap.org> and contributors. Contains public sector information licensed under the Open Government Licence v3.0)

- 4.27. The site is therefore considered to be at a low risk of flooding as a result of reservoir failure.

Groundwater

- 4.28. Groundwater flooding occurs in areas where underlying geology is permeable and water can rise within the strata sufficiently to breach the surface.
- 4.29. The British Geological Survey's (BGS) mapping shows superficial deposits of River Terrace Deposits comprised of sand and gravel underlying the site. The bedrock underlying the site is

made up of Newhaven Chalk Formation. Magic Maps¹⁴ Aquifer Designation Map the superficial aquifer is defined as 'Secondary A' and a bedrock aquifer defined as 'Principal' aquifer.

- 4.30. The Wiltshire SFRA web mapping (2021) indicates that the site is within an area whereby groundwater levels are within 0.025m of the ground surface (Figure 9).

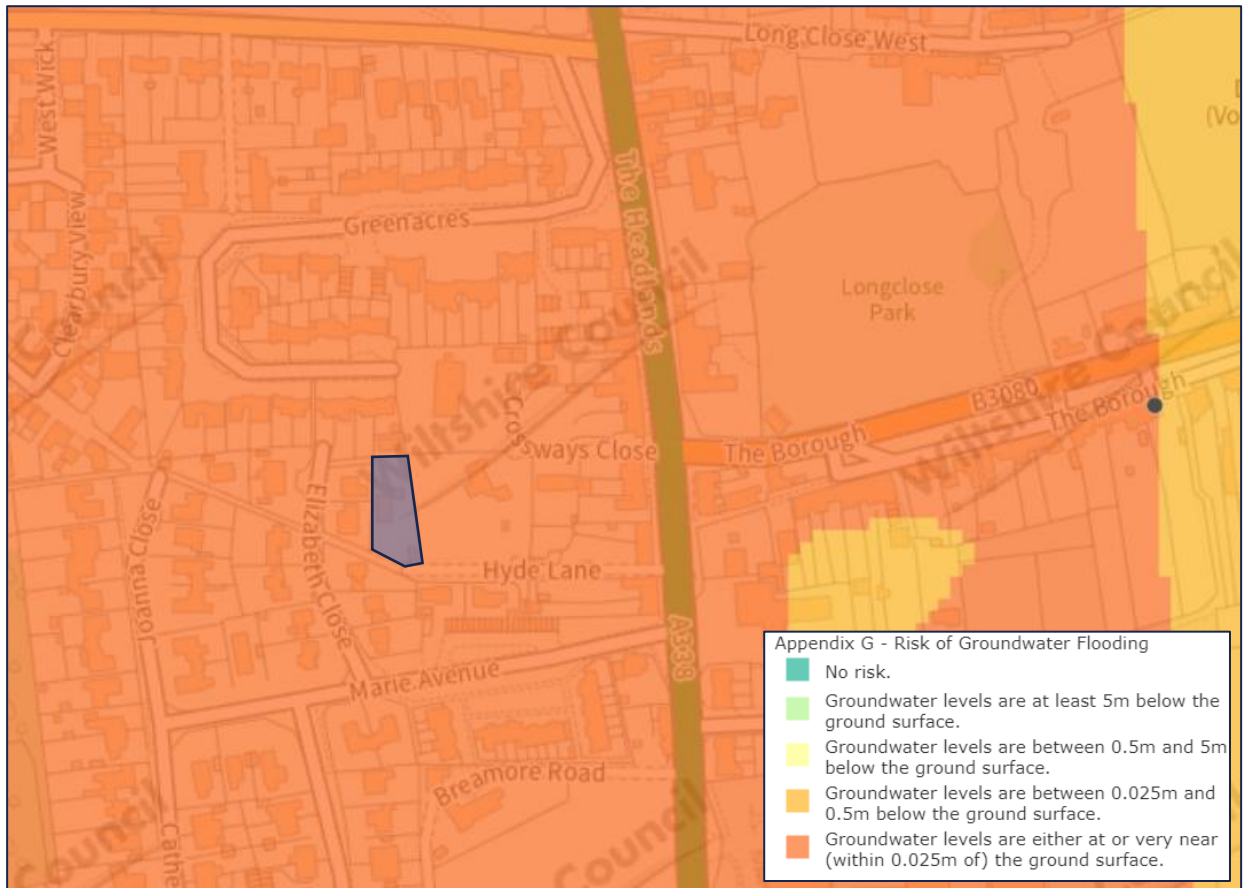


Figure 9: Groundwater flood risk (Source: Wiltshire SFRA Web Mapping, 2021) Site shown in blue outline.

- 4.31. Historical BGS borehole dataset shows the closest available borehole (ref: SU12SE18) to the site is located c.220m northwest of the site. The borehole log confirms the local superficial geology to be comprised of gravel deposits. Groundwater was struck at 5ft (1.5m) below ground level, on 08/11/1958, thus can be considered a winter groundwater level. Given an elevation of the borehole location (EA LiDAR) is 37.0m AOD, this puts the groundwater level at 35.5m AOD.

¹⁴ <https://magic.defra.gov.uk/MagicMap.html>

Compared to proposed replacement dwelling location (37.0m AOD), this puts the dwelling ground level 1.5m above borehole groundwater levels.

- 4.32. Based on the local geology (BGS Borehole) compared to the regional level mapping (Wiltshire SFRA Web Mapping), it can be considered that a groundwater table within the area of the site is at least 1.5m below the level of the site, in contrast to what is shown within the regional level mapping.
- 4.33. The existing dwelling and proposed dwelling do not include any subterrain levels, thus the proposals is considered to be at moderate risk of groundwater flooding. Therefore, mitigation will be recommended within section 5 of this report to reduce the risk to the development and provide a betterment on the existing situation.

Sewers

- 4.34. Foul or surface water sewers can be a cause of flooding if the drainage network becomes overwhelmed, either by blockage or due to local development beyond the designed capabilities of the drainage system.
- 4.35. The Wiltshire SFRA web mapping (2021) provides historical records of number of sewer flood incidents within four-digit postcode areas, with the 'SP5 3' postcode area there has been a recorded 44 incidents (Figure 10). The location of these incidents in relation to the site is unknown.

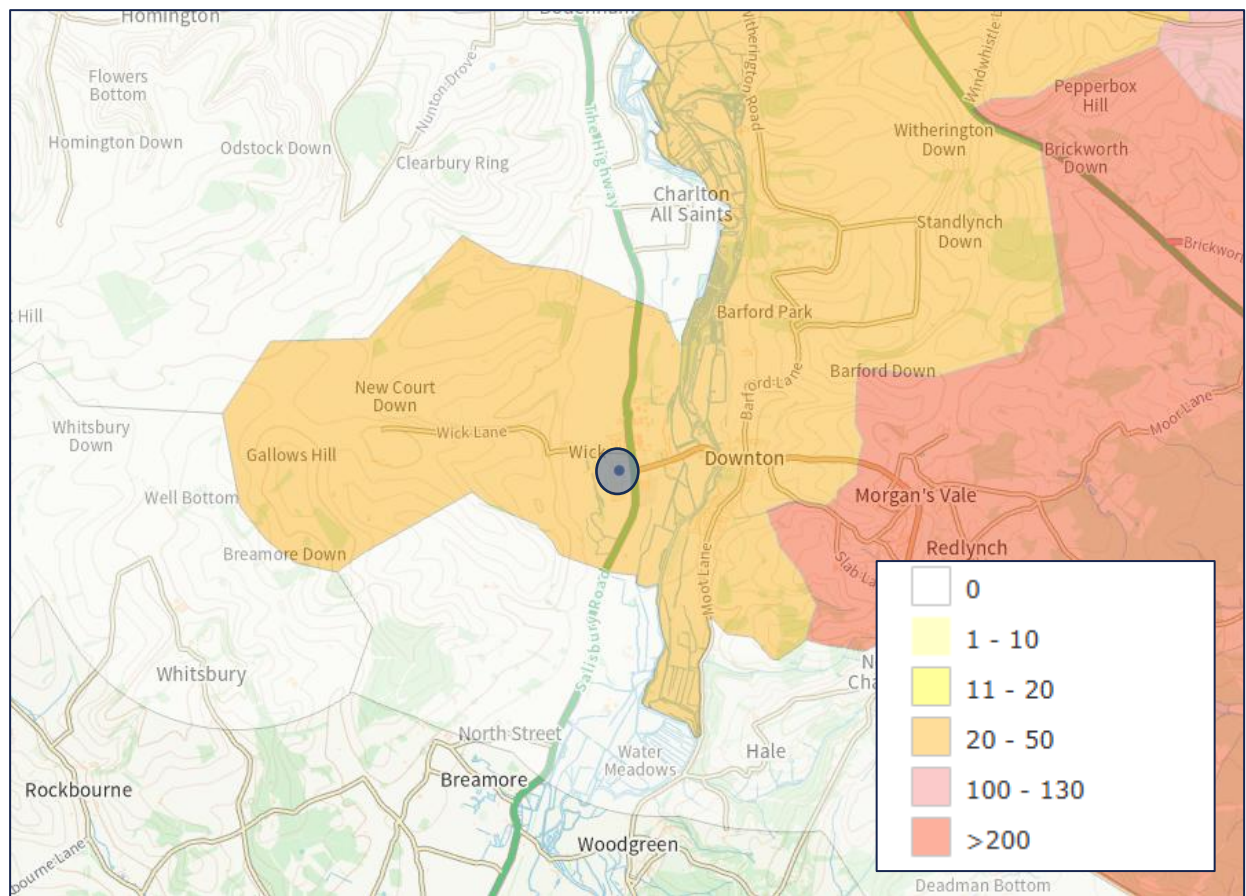


Figure 10: Historical sewer flood incidents (Source: Wiltshire SFRA Web Mapping, 2021) Site shown in blue circle.

- 4.36. The closest major roadway to the site is Elizabeth Close, which is c.10m west of the site where assumed sewer connections will be located. Elizabeth Close falls in a southerly direction away from the site, thus if a sewer flood was to occur flows would flow away from the site. Furthermore, the site also slopes in a southerly direction away from the dwelling, thus any out of manhole flooding from any private sewers that are located close to the site will flow away from the dwelling and off site.
- 4.37. The development is therefore considered to be at low risk of flooding from sewers.

5. Flood Risk Mitigation

Groundwater

- 5.1. Based on the details given within this FRA, the development is considered to be at a moderate risk of groundwater flooding. If the mitigation suggested below is implemented this will reduce the risk of groundwater flooding to the dwelling, as well as providing a betterment on the existing dwelling.
- 5.2. The following measures should be incorporated within the proposed dwelling where appropriate, in accordance with the CLG Report, Improving the Flood Performance of New Buildings - Flood Resilient Construction¹⁵ (2007), measures such as the below:
- Solid (i.e. concrete floors) where possible with waterproof membrane. Floor to be finished with water resistant screed or ceramic tiles.
 - Raised wiring and power outlets at ground level 300mm above finished floor levels.
 - A SMART Airbrick® (or similar) is to be installed to ensure water ingress does not occur into the buildings.
 - Damp Proof Membrane (d.p.m) should be included to minimise the passage of water through ground floors.
 - Cavity insulation should preferably incorporate rigid closed cell materials as these retain integrity and have low moisture take-up.
 - Non-return valves should be installed on the new drainage systems throughout the new development. It is also recommended that these valves are retrofitted on to any reused existing sewer connections to prevent backflow of diluted sewage. Maintenance of these valves is important to ensure their continued effectiveness so should be maintained in line with manufactures recommendations.
 - Windows and patio doors are vulnerable to flood water and similar measures to those used for doors should be taken. Special care should be taken to ensure adequate sealing of any PVC window/door sills to the fabric of the house. Of concern would be excessive

¹⁵ <https://www.gov.uk/flood-and-coastal-erosion-risk-management-research-reports/improving-the-flood-performance-of-new-buildings-in-flood-risk-areas>

water pressure on the glazing of patio doors. Double glazing conforming to the relevant standards would, in principle, adequately resist the pressures generated by flood waters.

- Pipework routes should be easily accessible to allow for maintenance and wash down following any flooding.

Other Sources

- 5.3. Flood risks from fluvial, pluvial, tidal, sewers, reservoirs and canals are considered to be low, therefore additional mitigation is not a requirement.

Increase to Flood Risk Elsewhere

- 5.4. The proposals include a replacement dwelling covering the same footprint as existing to replace the existing. Therefore, there will be no increase in built footprint as a result of the development and no increase in flood water displacement.
- 5.5. It is also recommended that small scale SuDS are implemented to reduce run-off from the proposed dwelling. Such as rainwater planters and water butts at the base of downpipes. All SuDS features should be used where possible in external areas to provide betterment in terms of runoff rates and provide storage of rainwater in day-to-day rainfall events.

Flood Warnings

- 5.6. The occupant of the dwelling should monitor Met Office Weather Warnings to be prepared for extreme weather events
- 5.7. The Met Office issues weather warnings up to 5 days in advance, through the National Severe Weather Warning Service, when severe weather has the potential to bring impacts to the UK. It is also possible to stay up to date with weather warnings through the Met Office app (available on both android and apple), social media (X/twitter, Facebook) or email alerts.

6. Conclusions

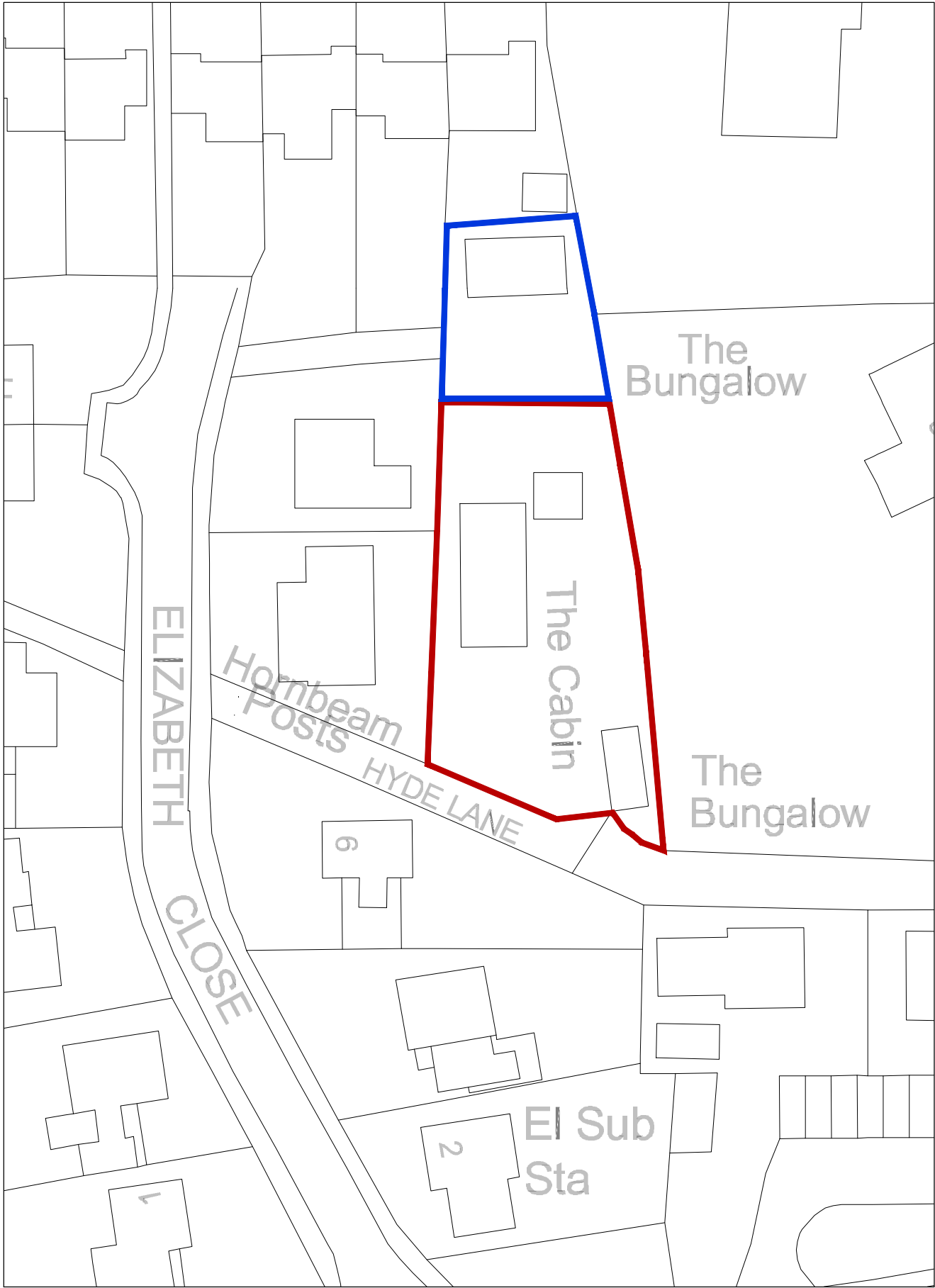
- 6.1. This FRA has been undertaken with reference to the requirements of NPPF and Planning Practice Guidance with respect to the development at The Cabin, Hyde Lane, Downton, Wiltshire, SP5 3NE. It has been written to support a planning application and prepared with due consideration to the nature of the proposed development to provide the appropriate level of detail.
- 6.2. An assessment of the risk of flooding from all sources has been undertaken and is summarised in the table below:

Source of Flooding	Flood Risk Summary
Groundwater	The British Geological Survey's (BGS) mapping shows superficial deposits of River Terrace Deposits comprised of sand and gravel underlying the site. The bedrock underlying the site is made up of Newhaven Chalk Formation. Magic Maps Aquifer Designation Map the superficial aquifer is defined as 'Secondary A' and a bedrock aquifer defined as 'Principal' aquifer. Based on the local geology (BGS Borehole) compared to the regional level mapping (Wiltshire SFRA Web Mapping), it can be considered that a groundwater table within the area of the site is at least 1.5m below the level of the site, in contrast to what is shown within the regional level mapping. The existing dwelling and proposed dwelling do not include any subterranean levels, thus the proposals is considered to be at moderate risk of groundwater flooding, accordingly mitigation will be recommended within section 5 to reduce the risk to the development and provide a betterment on the existing situation.
Tidal Fluvial Pluvial Reservoirs Sewers Canals	The site is considered to be at low risk from other sources.

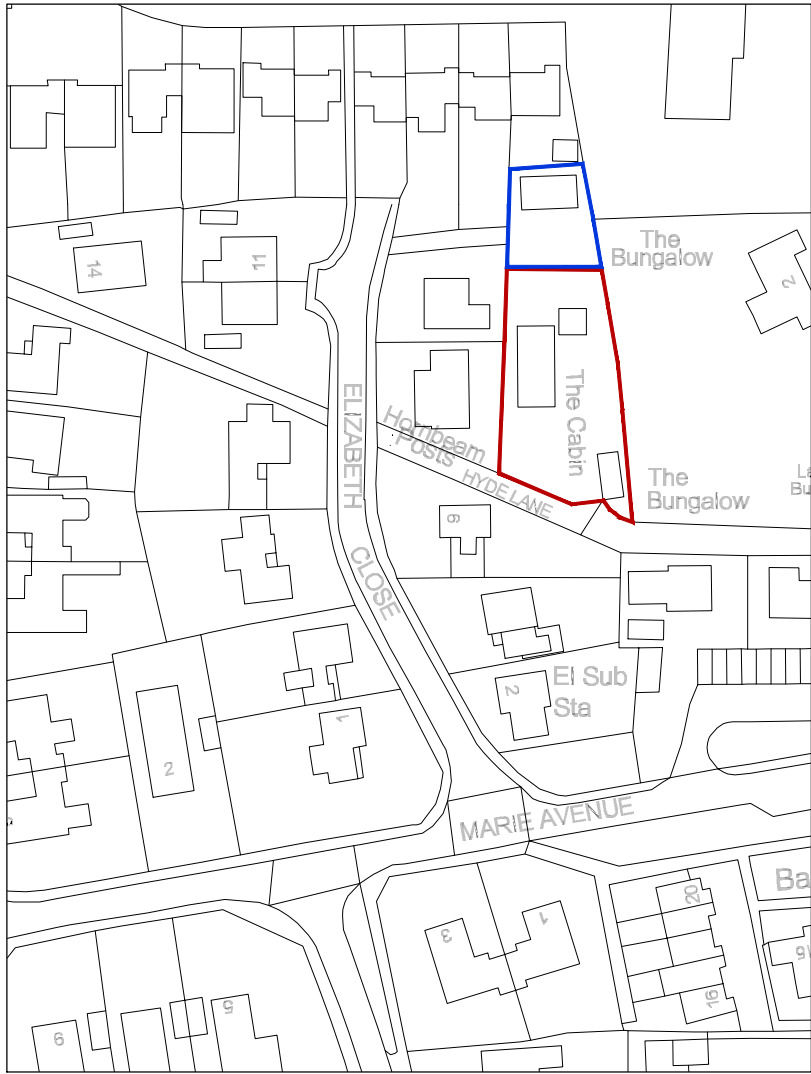
- 6.3. The FRA supports the planning application and demonstrates that there is an acceptable level of flood risk to the site if the mitigation strategies recommended are implemented in the scheme. The development does not increase flood risk off site or to the wider area.
- 6.4. This Flood Risk Assessment should be submitted as part of the planning application to satisfy the requirements under NPPF.

Appendix A - Development Proposals

THE CABIN, HYDE LANE



1 SITE PLAN - EXISTING
scale 1:500



2 LOCATION PLAN - EXISTING
scale 1:1250

NOTES

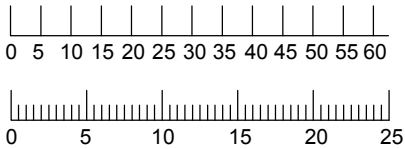
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DETAILS	DATE	REVISION

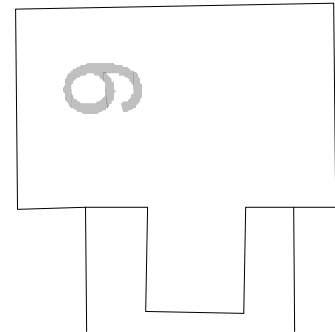
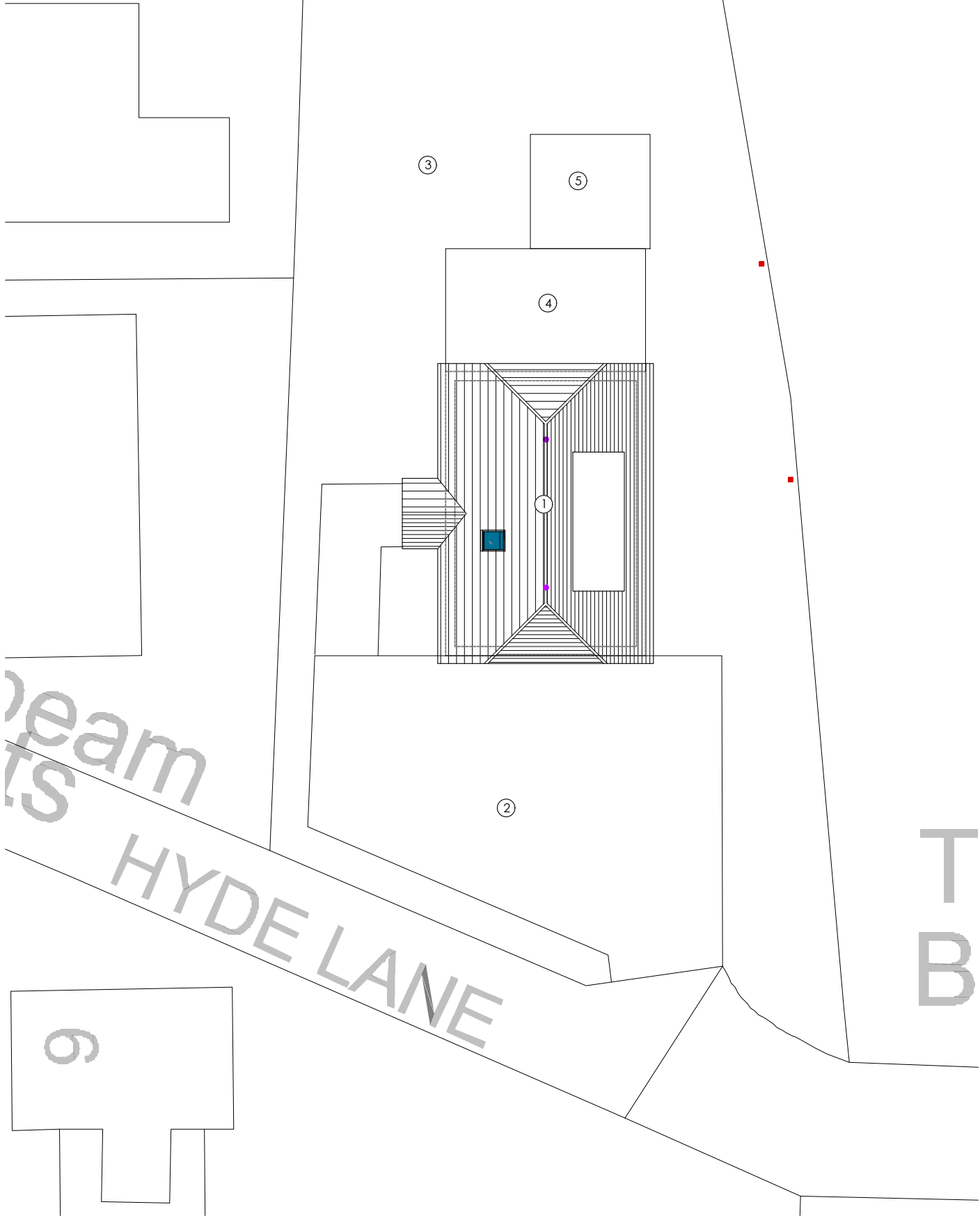
PLANNING

PROJECT		
EXISTING SITE AND LOCATION PLAN		
PROPOSED REPLACEMENT DWELLING AND CARPORT AT THE CABIN, HYDE LANE, DOWNTON, SALISBURY, WILTSHIRE SP5 3NE		
DATE	CLIENT	
JAN 2025	MR D. DORRINGTON	
SCALE	DRAWING NO.	REVISION
1:500, 1:250	2419/03/01/01	-

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DESIGNS

THE CABIN, HYDE LANE

Duty

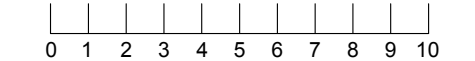


1 PROPOSED SITE PLAN

scale 1:200

SITE PLAN KEY	
1.	Replacement house
2.	Drive
3.	Garden
4.	Patio
5.	Existing workshop

ECOLOGY KEY	
	Bird box
	Bat access tile
- Drawings to be read in conjunction with ecologists report and recommendations.	



DETAILS	DATE	REVISION

PLANNING

PROJECT

PROPOSED SITE PLAN

PROPOSED REPLACEMENT DWELLING AND CARPORT AT THE CABIN, HYDE LANE, DOWNTON, SALISBURY, WILTSHIRE SP5 3NE

DATE	CLIENT	
OCT 2025	MR D. DORRINGTON	
SCALE	DRAWING NO.	REVISION
1:200 @A3	2419/03/02/01	-

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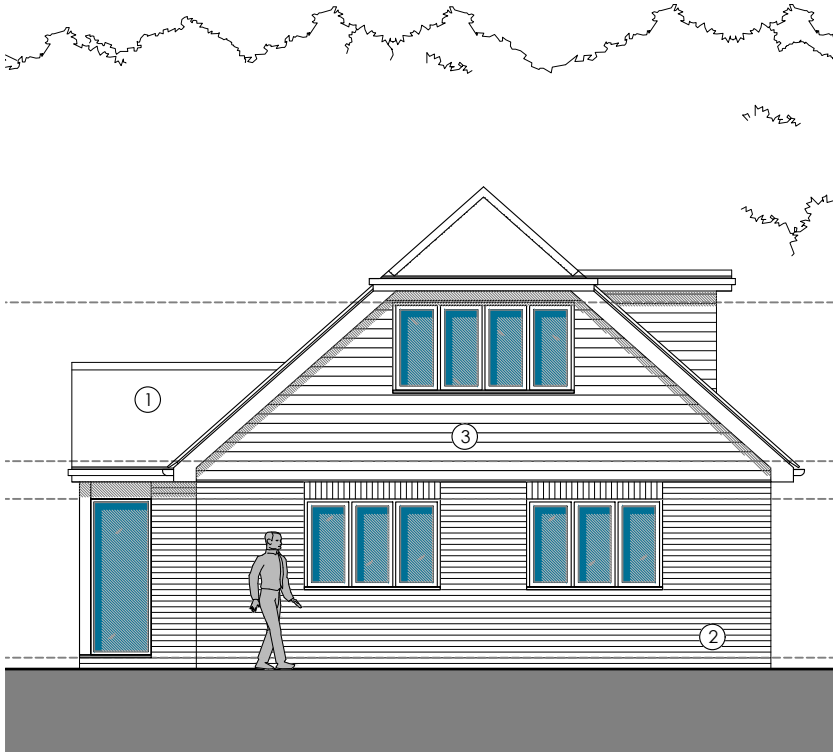
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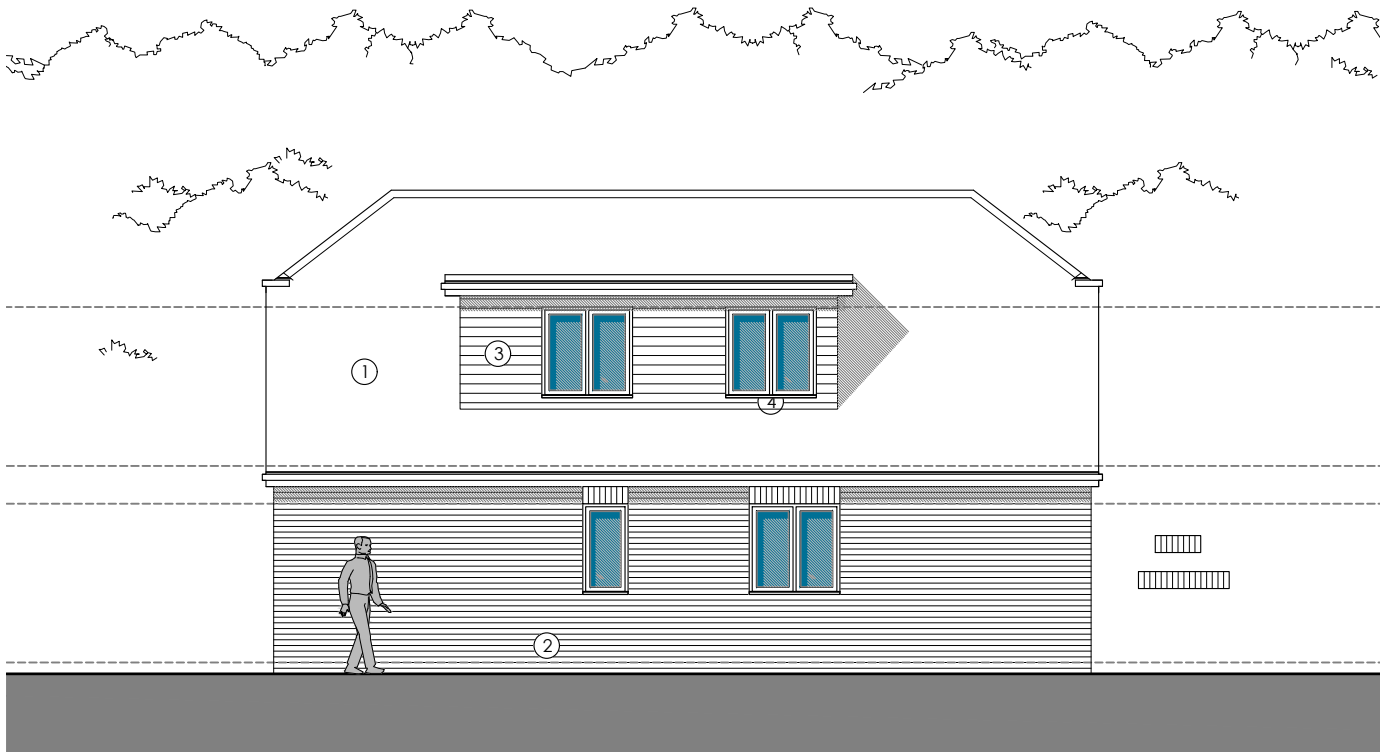
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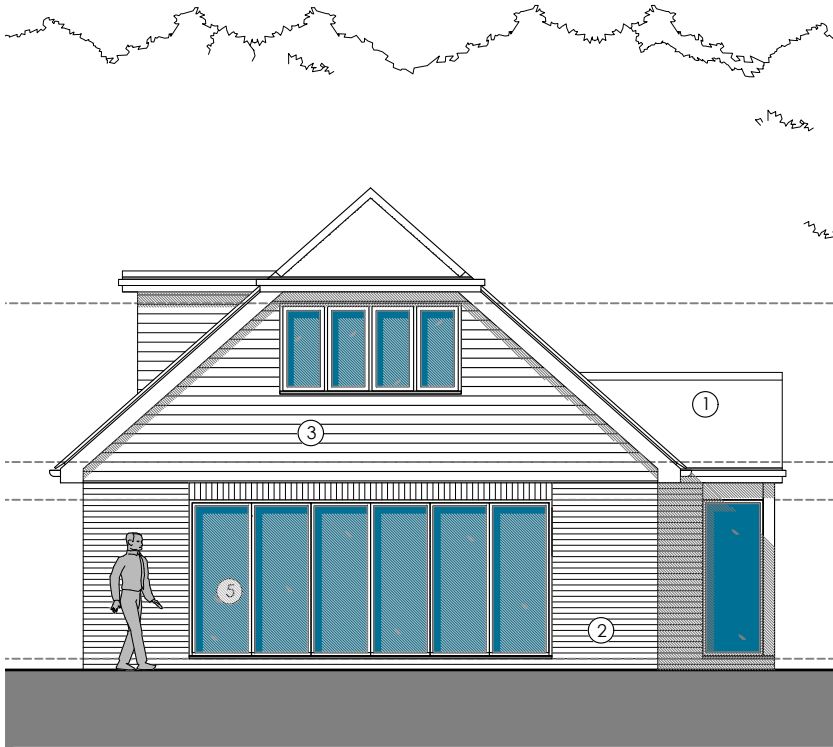
THE CABIN, HYDE LANE



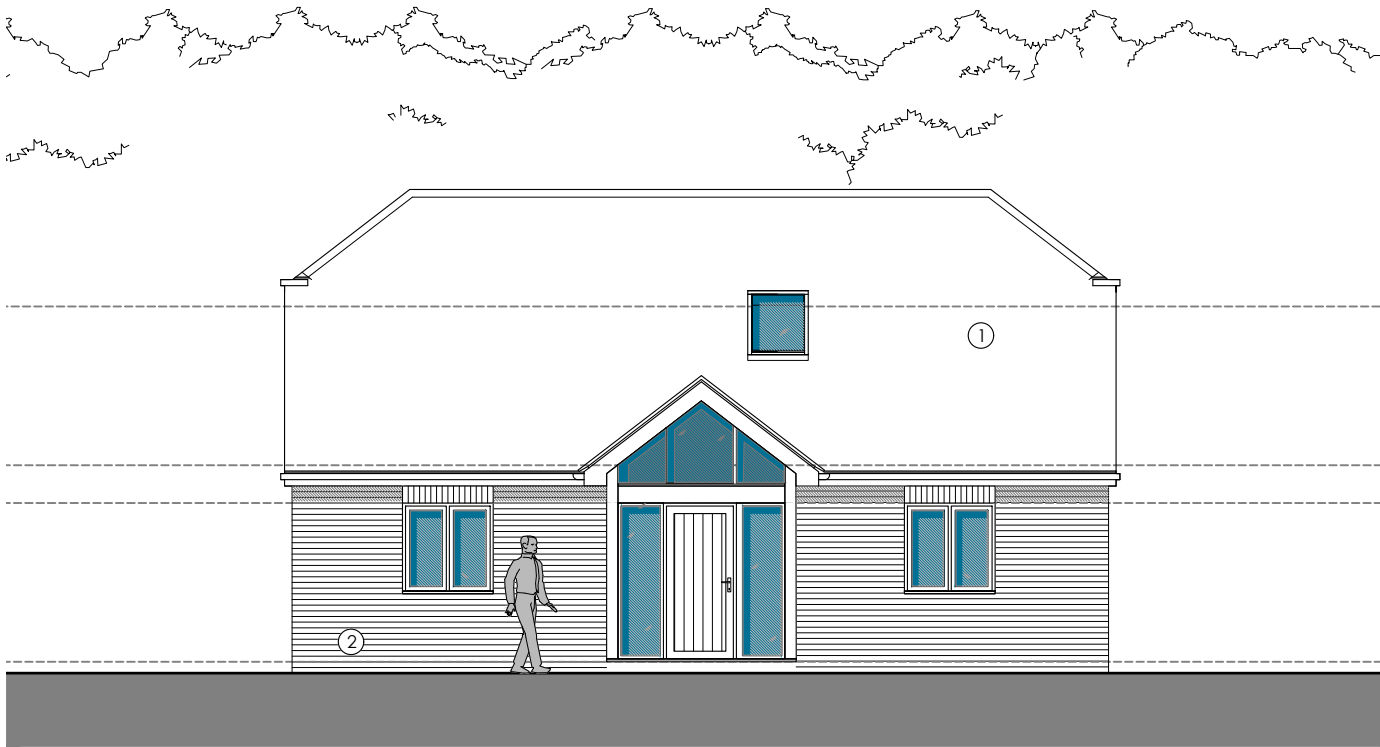
1 PROPOSED SOUTH ELEVATION - HOUSE
scale 1:00



2 PROPOSED EAST ELEVATION - HOUSE
scale 1:00



3 PROPOSED NORTH ELEVATION - HOUSE
scale 1:00



4 PROPOSED WEST ELEVATION - HOUSE
scale 1:00

NOTES

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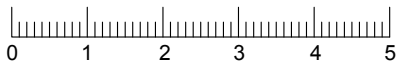
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ELEVATION KEY

1. Natural slate roof
2. Facing brickwork
3. Timber cladding
4. Colored UPVC windows
5. Colored UPVC doors
6. Obscured glass



DETAILS	DATE	REVISION

PLANNING

PROJECT		
PROPOSED ELEVATIONS - HOUSE		
PROPOSED REPLACEMENT DWELLING AND CARPORT AT THE CABIN, HYDE LANE, DOWNTON, SALISBURY, WILTSHIRE SP5 3NE		
DATE	CLIENT	
OCT 2025	MR D. DORRINGTON	
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THE CABIN, HYDE LANE

NOTES

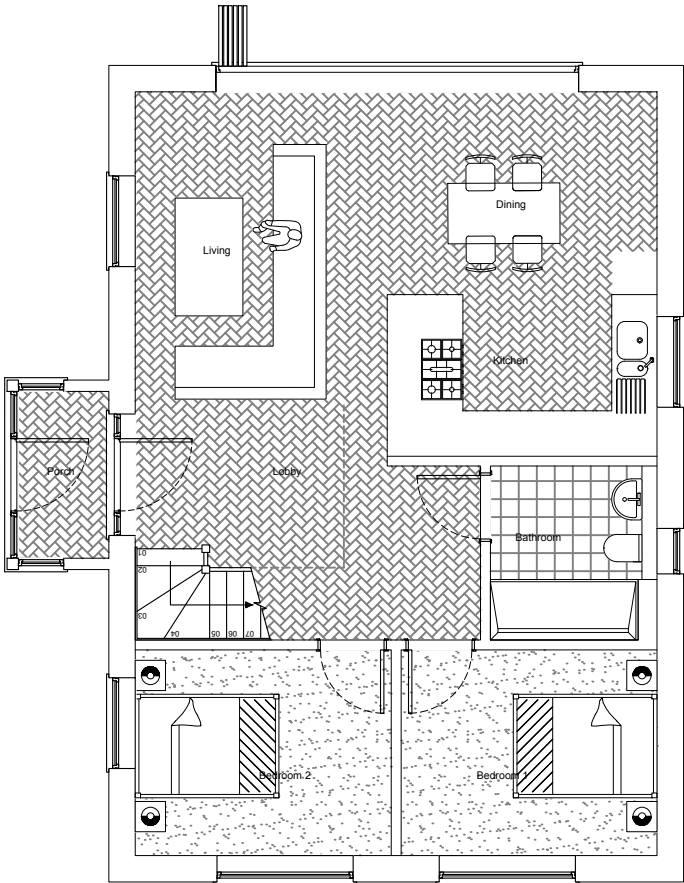
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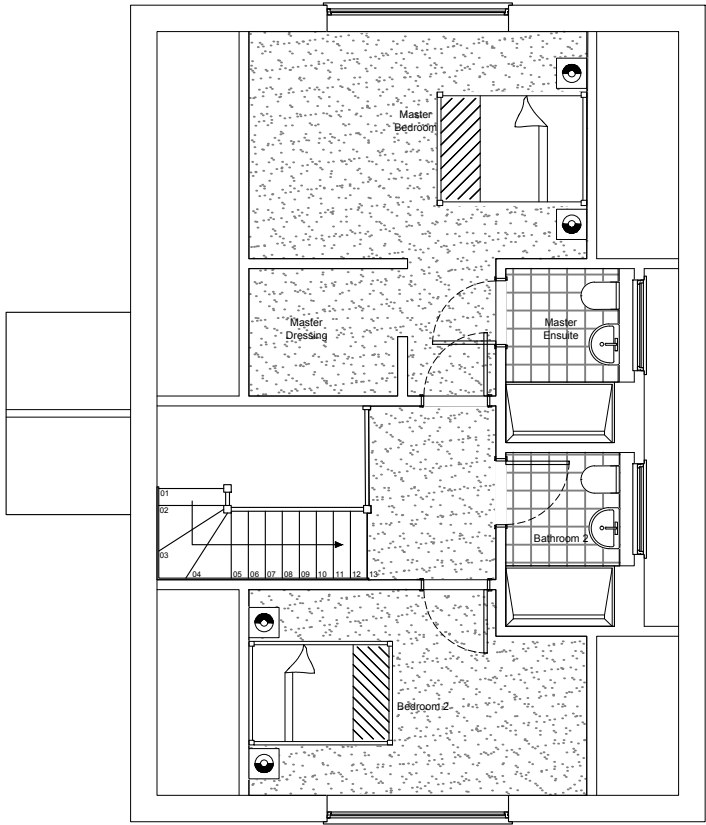
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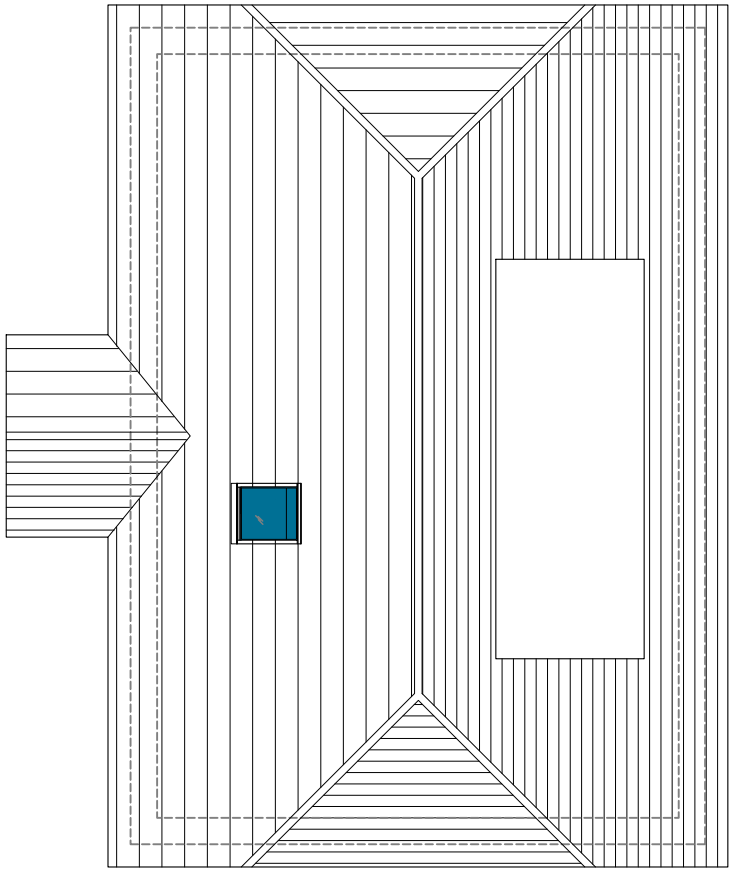
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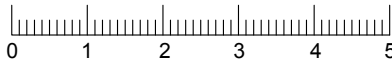
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scale 1:100



2 PROPOSED FIRST FLOOR - HOUSE
scale 1:100



3 PROPOSED ROOF - HOUSE
scale 1:100



DETAILS	DATE	REVISION

PLANNING

PROJECT		
PROPOSED PLANS - HOUSE		
PROPOSED REPLACEMENT DWELLING AND CARPORT AT THE CABIN, HYDE LANE, DOWNTON, SALISBURY, WILTSHIRE SP5 3NE		
DATE		CLIENT
OCT 2025		MR D. DORRINGTON
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1:100 @A3	2419/03/03/01	-

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