FLOOD RISK ASSESSMENT
FOR RESIDENTIAL DEVELOPMENT AT
THE BLACK SWAN, FARCET

FINAL REPORT

ECL1576/TMV ARCHITECTURE

DATE JULY 2025

ELLINGHAM CONSULTING LTD

[redacted]

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1.0 INTRODUCTION

This Flood Risk Assessment has been prepared in accordance with National Planning Policy Framework (NPPF) and supporting planning practice guidance (PPG) on Flood Risk and Coastal Change.

In areas at risk of flooding or for sites of 1 hectare or more, developers are required to undertake a site-specific Flood Risk Assessment to accompany an application for planning permission. This Flood Risk Assessment has been produced on behalf of Mr D Guy in respect of the conversion of a public house to a dwelling and two new dwellings at the Black Swan, Farcet.

A planning application for the proposed development is to be submitted by TMV Architecture.

2.0 SITE LOCATION AND DESCRIPTION

2.1 Site Location

The site is at the Black Swan Public House, 77 Main Street, Farcet, Peterborough, PE7 3DF. The National Grid Reference of the site is 52070/29450.

The location of the site is shown in Figure 1.



Figure 1 – Location Plan (© OpenStreetMap contributors)

2.2 Existing Site

The site is on the northern side of Main Street. The site consists of a public house and the surrounding land. The western part of the site is an access to the land to the north of the site. The area of development is approximately 0.14 hectares.

The topographic survey of the site, which is in Attachment 1, shows that ground levels are typically between +3.5m OD and +3.9m OD. The highest ground levels in the area surrounding the public house.

The River Nene (Old Course) forms the eastern boundary of the site. The land to the east of the River Nene (Old Course) site is in the Whittlesey Internal Drainage Board's (IDB) area. It is anticipated that surface water from the site is discharged to the Rover Nene (Old Course).

The online British Geological Survey maps indicate that the site is likely to be underlain by the Oxford Clay Formation mudstone. The bedrock is shown to be overlain with superficial deposits of peat.

2.3 Proposed Development

The proposed development consists of the conversion of public house to a dwelling and construction of two dwellings. A Site Plan is provided in Attachment 1.

2.4 Local Development Documents

Huntingdonshire's Local Plan to 2036 was adopted in May 2019. The Local Plan sets out the Council's approach to securing sustainable development from 2011 to 2036 to meet identified needs. It identifies key areas of land for development and includes policies against which all planning applications are considered.

The Huntingdonshire District Council Strategic Flood Risk Assessment (SFRA) was prepared in June 2017. A SFRA had been undertaken in 2010 which took account of flood defences.

The Cambridgeshire Flood and Water Supplementary Planning Document has been prepared by Cambridgeshire County Council (as the Lead Local Flood Authority) in conjunction with the other Cambridgeshire local planning authorities and other relevant stakeholders to support the implementation of flood risk and water related policies.

2.5 Flood Zones

An extract from the Environment Agency flood map for planning is shown in Figure 2. The site is partly located in Flood Zone 2, an area with medium probability of flooding.

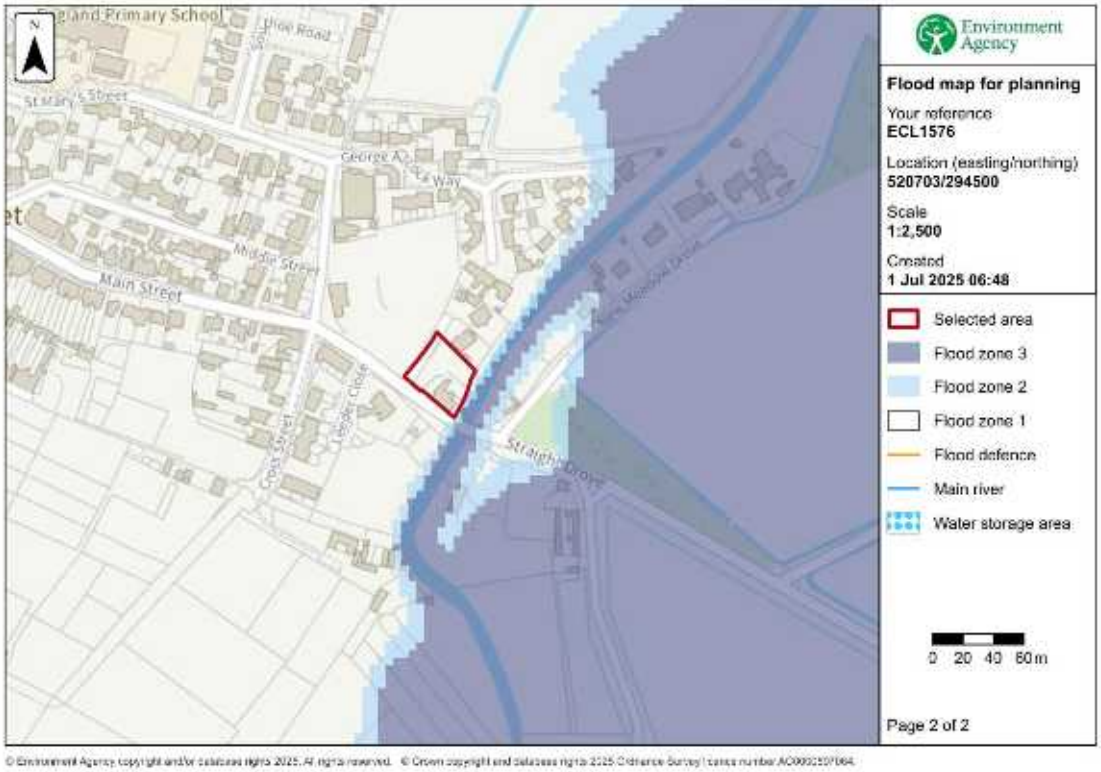


Figure 2 – Environment Agency Flood Map for Planning

The Environment Agency Long Term Flood Risk maps provide an indication of the risk from the primary sources of flooding. The details provided with these maps are summarised in Table 1. The depth of flooding identified is the maximum depth that occurs during a low chance (between 0.1% and 1% chance each year) event.

	Present Day		2050 Epoch	
	Risk of Flooding	**Depth (Low chance)**	**Risk of Flooding**	**Depth (Low chance)**
Rivers and the Sea	The eastern boundary of the site has a medium chance (between 1% and 3.3% chance each year)	No data available	No data available	No data available
Surface Water	An area at the south western corner of the site has a high chance (greater than 3.3%)	During low chance events depths are to 0.2m	An area at the south western corner of the site has a high chance (greater than 3.3%)	During low chance events depths are to 0.2m
Reservoir	Outside of the area at risk.			

Table 1 – Environment Agency Long Term Flood Risk Maps

The maps within the Huntingdonshire District Council SFRA of 2017 show that:

- the eastern boundary of the site is in Flood Zone 2;
- the site is not at fluvial flood risk including climate change from the watercourses that have been modelled;
- part of the site access is shown to be within the 30-year extent for surface water flooding; and
- the site is not susceptible to groundwater flooding.

The maps within the Huntingdonshire District Council SFRA of 2010 show that:

- the site is outside an area of rapid inundation;
- the site is outside the 1 in 100 Year with Climate Change (2115) Flood Extent; and
- the site is outside the 1 in 1000 Year Flood Extent.

3.0 FLOOD RISK VULNERABILITY

3.1 The Sequential and Exception Test

The NPPF requires the application of a Sequential Test to ensure that new development is in areas with the lowest probability of flooding.

The Exception Test is a method to demonstrate and help ensure that flood risk to people and property will be managed, while allowing necessary development to go ahead in situations where suitable sites at lower risk of flooding are not available.

3.2 Vulnerability Classification

Table 2 of the PPG Flood Risk and Coastal Change categorises different types of uses and development according to their vulnerability to flood risk. The proposed development is covered by the description of buildings used for dwellings and is classified as 'More Vulnerable'.

Table 3 of the PPG Flood Risk and Coastal Change sets out Flood Risk Vulnerability and flood zone 'compatibility'. The site is partly in Flood Zone 2 and the development is 'More Vulnerable' therefore it is not necessary to complete the Exception Test.

PPG Flood Risk and Coastal Change defines that the lifetime of the development in terms of flood risk and coastal change is 100 years.

3.3 Application of the Sequential Test

It is for the Local Planning Authority, using the evidence provided and taking advice from the Environment Agency as appropriate, to consider whether an application passes the Sequential Test.

The footprint of the built development that includes the dwellings and site access are located in Flood Zone 1. It is not possible to undertake the development at an alternative site with a lower probability of flooding. The site is considered to pass the Sequential Test.

4.0 SITE SPECIFIC FLOOD RISK

4.1 Local Flood Assets

The site is approximately 3.4km south of the River Nene and 1.1km south east of the Stanground Lode. The River Nene and the Stanground Lode are Main Rivers and the responsibility of the Environment Agency. The site is not at risk from the River Nene or Stanground Lode.

The eastern boundary of the site is formed by the River Nene (Old Course). The River Nene (Old Course) is maintained by the Middle Level Commissioners (MLC). The River Nene (Old Course) forms part of the Middle Level River System which discharges to the River Great Ouse at St Germans Pumping Station.

4.2 Sources of Flooding

A summary of the sources of flooding is provided in Table 2.

Source of Flooding	Level of Risk
Surface Water Flooding	Based upon the EA maps the risk is typically very low with an isolated area with a high chance and depths to 0.2m.
Fluvial Flooding	The risk is assessed in Section 4.3 and 4.5.
Tidal Flooding	The site is not at risk of tidal flooding.
Reservoir Flooding	Based upon the EA maps the site is not at risk of flooding from reservoirs.
Groundwater Flooding	There is no evidence to suggest the site is at risk of groundwater flooding.

Table 2 – Sources of Flooding

4.3 Probability of Flooding

The Environment Agency Long Term Flood Risk Maps indicate the probability and depth of surface water flooding. For the present day scenario an isolated area close to the site access has a high chance of flooding (more than 3.3% chance each year). The area is at risk has depths to 0.2m.

Middle Level Commissioners maintained watercourses such as the River Nene (Old Course) provide protection during the 1% annual probability (1 in 100 chance each year) event.

4.4 Historic Flooding

During the preparation of this assessment, no evidence was discovered of the site being flooded.

4.5 Climate Change and Residual Risk

Climate change is likely to impact the site through increased rainfall intensity and duration affecting the local drainage network and increased flood levels in the River Nene (Old Course).

The extent and probability of surface water flooding during the 2050 epoch is shown in Figure 3.

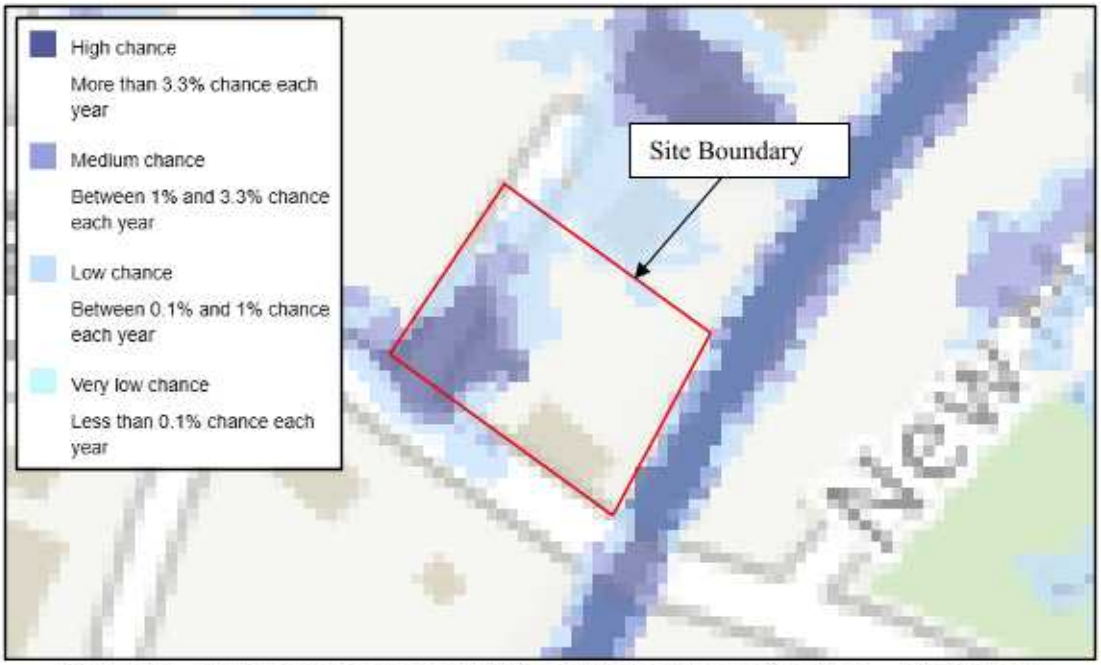


Figure 3 – Environment Agency Surface Water Flood Risk Map – 2050 Epoch

The depth of flooding that could occur during a low chance (between 0.1% and 1% chance each year) event is to 0.2m.

The surface water flood maps give an indication of the risk. The maps do not consider the geology of the site or local drainage features. Drainage through the highway drainage system would reduce the duration and risk of surface water flooding.

The Middle Level Commissioners maintained watercourses such as the River Nene (Old Course) provide protection during the 1% annual probability (1 in 100 chance each year) event including climate change. MLC watercourses typically have a freeboard in excess of 0.9m which significantly reduces the risk of flooding to the adjacent land.

The primary residual risk to the site is during an exceedance event.

5.0 FLOOD RISK MITIGATION

5.1 Summary of Risks

Part of the site is at risk of surface water flooding. An area in the south western corner of the site has a high chance of flooding with flood depths to 0.2m.

The risk of flooding from the River Nene (Old Course) is less than 1% annual probability (1 in 100 chance each year) including an allowance for climate change.

The proposed development increases the impermeable area and therefore has the potential to increase the rate of surface water runoff from the site.

5.2 Mitigation Measures

Based upon the information available during the preparation of this flood risk assessment it is recommended that the new dwellings have a finished floor level 0.3m above surrounding ground levels and there is 0.3m of flood resilient (recovery) construction above finished floor level. There are no specific recommendations for the conversion of the public house to a dwelling.

The risk of flooding is lowered as the proposed dwellings have 2 storeys with all sleeping accommodation on the first floor.

The developer should ensure that the eventual occupiers of the dwellings are sufficiently aware of the risk of flooding, and the standard of the existing defences.

It is recommended that surface water run-off is managed so that stormwater from the development will not affect any adjoining properties or increase the flood risk elsewhere.

6.0 CONCLUSIONS

As a result of the assessment, the following conclusions have been reached.

- The proposed development consists of the conversion of a public house to a dwelling and construction of two dwellings at the Black Swan, Farcet.

- Part of the site is at risk of surface water flooding. An area in the south western corner of the site has a high chance of flooding with flood depths to 0.2m.

- The eastern boundary of the site is in Flood Zone 2. The elevation of the site is such that it is not at risk from the River Nene (Old Course) during the 1% annual probability (1 in 100 chance each year) event including climate change.

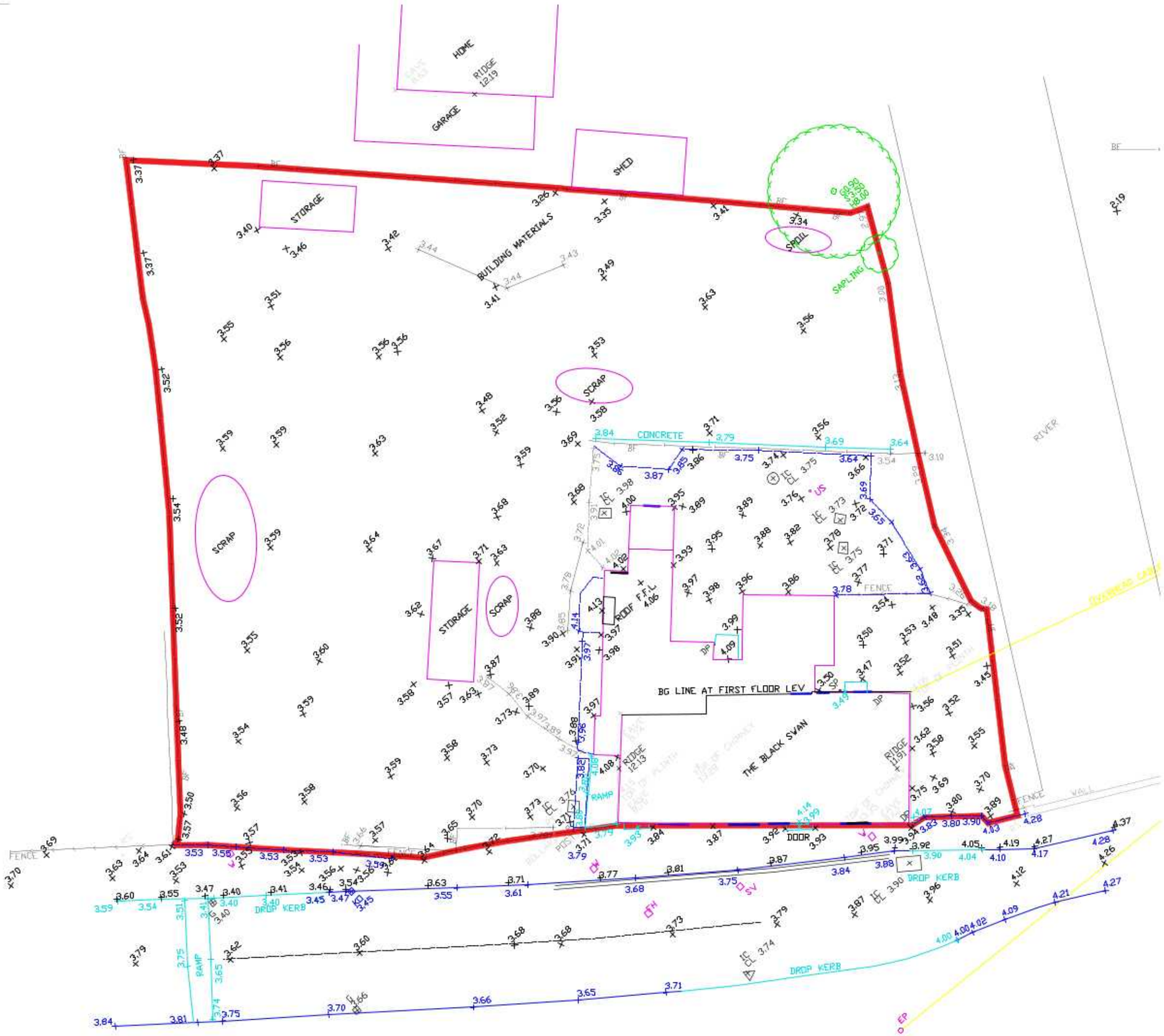
- It is recommended that the new dwellings have a finished floor level 0.3m above surrounding ground levels and there is 0.3m of flood resilient (recovery) construction above finished floor level. There are no specific recommendations for the conversion of the public house to a dwelling.

- The development passes the Sequential Test and is therefore suitable for the proposed location.

ATTACHMENT 1

EXISTING SITE PLAN
(DWG 927 003)

PROPOSED SITE PLAN
(DWG 927 004)



Existing Site Plan

TMV Architects
The Repeater Station
London Road
Norman Cross
Peterborough PE7 3TB

info@tmvarchitects.co.uk
01733 794 795
tmvarchitects.co.uk

Note
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Rev.	Date	Details

Planning

Drawing Name
Existing Site Plan

Project Name	Project No.	Dwg No.
Black Swan, Farcet	927	003
	Rev.	**Scale**
	-	1:200 @ A3
	Drawn	**Date**
	SJM	23.05.2022



Proposed Site Plan

TMV

TMV Architects
The Repeater Station
London Road
Norman Cross
Peterborough PE7 3TB

info@tmvarchitects.co.uk
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Rev.	Date	Details
E	27.05.25	Revised scheme for 3rd Application

Planning

Drawing Name
Proposed Site Plan

Project Name	Project No.	Dwg No.
Black Swan, Farcet	927	004
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