

Flood Risk Assessment

Hallbridge House, Blackjack Road,
Swineshead, Boston, Lincs, PE20 3HH

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. This Flood Risk Assessment has been prepared in support of the planning application

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 Colin Sims by Mark Ostler of Crawford Building Consultancy.

2.0 Site Location and description

The site is at Hallbridge House, Blackjack Road, Swineshead, Boston, Lincs, PE20 3HH. The National Grid Reference of the site is 526771/339697.

The location of the site is shown on Figure 1.

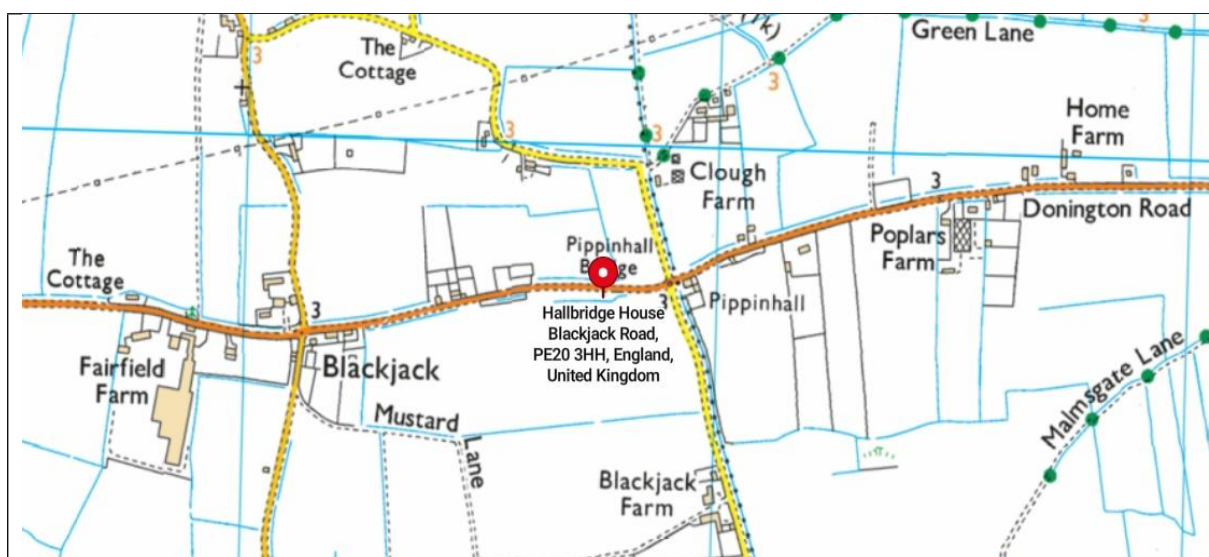


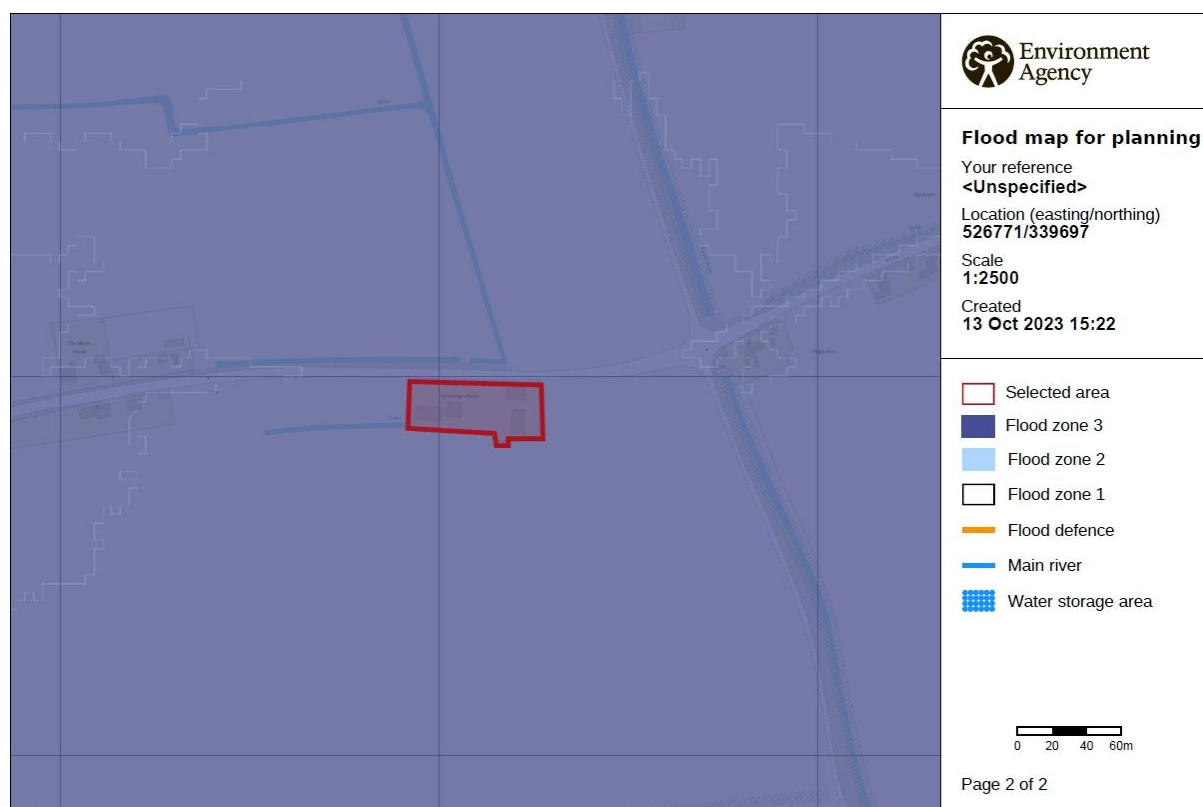
Figure 1.

The proposed development is to construct a detached brick and tile hay store and tack room to the existing footprint (now demolished to floor slab) using the existing floor slab and foundations. We intend to construct the building using the same materials as previously used prior to demolition. It is proposed that the floor slab for the replacement dwelling be set at 3.55mODN.

3.0 Flood Risk Information

An extract from the Environment Agency Flood Map for Planning is shown in Figure 2.

The site is located within Flood Zone 3, an area with a high probability of flooding.



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Figure 2.

The Environment Agency Long Term Flood Risk maps show:

- The site is in a flood zone 3 area with a high risk of flooding from rivers or the sea. This zone comprises land as having a 1 in 100 greater annual probability of river flooding (>1%), or a 1 in 200 greater annual probability of flooding risk from the sea (>0.5%) in any year.

- The site has a very low risk of surface water flooding.
- The site is not within an area at risk of reservoir flooding.

4.0 Flood risk

The main source of flooding which would affect the proposed development would be from:

- The Wash – tidal flooding.
- The Black Sluice Internal Drainage Board System - river flooding.

The construction of various embankments along The Wash and rivers and drains prevents the surrounding land from flooding during tidal surges. These embankments which are designed to reduce the risk of flooding from rivers and the sea but do not completely stop the risk of flooding due to failure or a storm event.

The embankments peak at the main defence at 7.75 m ODN and the second defence at 5.50m ODN.

With inland levels around Swineshead generally less than 4.00m ODN the land would considered to be at risk from flooding but in order for the sea water to flow inland there has to be a hydraulic gradient to drive the water inland. In a large tidal surge, the water level will decrease further away from the wash

The proposed development is located within the catchment area of Black Sluice Internal Drainage Board who responsible for maintaining the rivers and drains within the catchment area. The rivers and drains are continuously dredged and cleared to maintain an even flow. The sluice gates act as a device for controlling the flow of water, especially one in a lock gate. The Boards drains around the site play a significant part of the local drainage and therefore there is a reduced risk of flooding from rivers and drains, due to the drainage cuts being lower than the proposed development.

The probability of this development flooding from localised drainage systems is low.

Failure of a Pumping Station could increase the level of risk at the site.

The development increases the impermeable area and therefore has the potential to increase flood risk elsewhere.

Whilst flooding is a natural process flooding can occur from intense rainfall particularly when there is a high water table however the area is not known for any ground water related issues and to the best of our knowledge has not flooded.

Flooding may also occur from sewers when over capacity or blocked, however, there are no known sewers in the vicinity of the site and therefore can be discounted from being at risk.

There are no known reservoirs, lakes or water storage areas within the vicinity of the proposed development that pose a risk to the site.

Climate change is likely to impact the site through increased rainfall intensity and duration affecting the local drainage network. Due to the location of the site and low lying topography the site is considered to be at risk from a rise in sea levels particularly if flood defences are breached.

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

5.0 Application of the Sequential Test and Exception 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 proposed development is a replacement of a previously demolished structure and therefore it is not necessary to apply the Sequential Test to the development.

The Exception Test requires consideration of the wider sustainability benefits of a development and that the development would be safe and residual risks managed.

This development will be safe and not increase flood risk elsewhere. The development is considered to pass the Exception Test.

6.0 Conclusion

- The site lies within an area specified by the Environment Agency as within a flood zone 3 being at a high risk of flooding. To the best of our knowledge no recent flooding has occurred.
- The proposed development is generally considered not to be at risk from sewers, reservoirs or surface water.
- The proposed development in our opinion passes the Exception Test and due to the building being a like for like replacement does not fall into the requirement for the Sequential Test.
- It is recommended that surface water run-off is managed so that water from the site will not increase the flood risk elsewhere.
- The site is located within an Internal Drainage Board catchment and through the operation and maintenance of the pumping stations and the channel system the Board seek to maintain a general standard capable of providing flood protection to agricultural land and developed areas.
- We are of the opinion taking the risk assessment that the proposed development is therefore suitable for the proposed location.