Crown Bungalow, Main Road, Gedney Drove End, Spalding, Lincolnshire, PE12 9PD

Proposed rear and side extension

Planning Reference: H06-0327-25

Flood Risk Assessment

1. Introduction

This Flood Risk Assessment has been prepared in support of the planning application (Reference: H06-0327-25) for the proposed rear and side extensions to Crown Bungalow, Main Road, Gedney Drove End, Spalding.

The property is located within Flood Risk Zone 3, an area with a high probability of flooding as defined by the Environment Agency, due to proximity to the coast and low elevation. However due to local flood mitigation measures the probability of actual flooding is assessed as very low.

2. Site Specific Flood Risk

Gedney Drove End is a village on Gedney Marsh with a height above sea level of between +3m OD and +5m OD and as such is at risk from tidal inundation from The Wash to the North-East and the Rivers Nene and Welland to the South-East and North-West respectively.

The Site is within the South Holland Internal Drainage Board (IDB) District, which is protected by the Wash tidal defences along the Gedney Marsh frontage with the embankment levels at a minimum of +7.0m OD. This is approximately 1km from the site. The River Nene tidal defences are approximately 4km to the South-East of the site. The River Welland tidal defences are approximately 12km to the North-West of the site. All three are managed by the Environment agency.
The probability of the site flooding from a failure of any of the flood defence systems managed by the Environment Agency is less than 0.5% probability annually, due to the high standards of the existing flood defences and management systems. Risk is expected to increase gradually with time due to climate change which may cause a rise in sea level and increase the risk of freak weather events.

There is an extensive network of drainage ditches and larger water courses which are managed by the South Holland IDB. The site and the surrounding land are within the Lutton Leam catchment area, draining in a south-easterly direction discharging into the tidal River Nene at the Lutton Leam Tidal Sluice.

The probability of the site flooding from failure of localised drainage systems is low but failure of the Lutton Leam tidal sluices could lead to an increased level of risk at the site.

3. Flood Risk Mitigation Measures

Risk mitigation measures fall into two categories:

i. Local Environmental Management Strategies that benefit the whole area such as the maintenance of the flood defences, drainage networks and the sluices. In addition there are environmental monitoring systems, flood warning systems that reduce risk of flooding. Emergency response to a flooding event would include employing temporary pumping equipment.
ii. Site specific strategies to manage surface water, to reduce the risk of localised flooding that might affect Crown Bungalow and neighbouring properties.

As the proposed development of the property will increase the area of hard surfaces on the site (roof). Surface water run-off will be discharged to soakaways to BRE365 design standards to reduce the risk of localised flooding

Floor levels in the extension will match existing floor levels in the bungalow which are 300mm above external ground level to reduce the risk of inundation from storm water.

Permeable surfaces will be retained around the property and parking area.

4. Conclusion

The site is within Flood Zone 3, but the risk of flooding has a low probability due to the strategies and assets that are employed by the responsible agencies.

Works to be carried out will include mitigation measures to maintain the low probability of localised flooding, that may affect the existing property or neighbouring properties and will not increase the risk of flooding elsewhere.