

Flood Risk Assessment – Land at Wolsey Avenue Cawood.

Potential Sources of Flooding

- 1.0 Threat of flooding to the Site is most likely to be as a result of the River Ouse, which runs to the east of village, over topping or from internal drainage systems failing. The Site is protected by flood defences along the River Ouse and in the event of these failing it could be expected that flood waters could reach the Site, once they have passed through the rest of the existing village.

History of Flooding

- 1.1 The Applicant has confirmed that in 2011, at a time when most of the south of England was flooded, part of the Site designated as Flood Zones 2 and 3 suffered from surface water ingress from the farmland located to the west. The Applicant hired a pump and with the approval of the Internal Drainage Board discharged this water into the field drain to the north east corner of the Site. The standing water on the Site at this time did not reach the residential properties to the south. The following spring the owner of the adjacent farmland undertook works within the field and cleaned out their field drains. Since that work was undertaken there has been no further ingress of surface water on to this Site. As with most open land, during times of prolonged heavy rainfall areas to the north west of the Site are subject to standing water; this is due to saturation of the ground.

Climate Change

- 1.2 The NPPG indicates that global sea levels will continue to rise, depending on greenhouse gas emissions and the sensitivity of the climate system. The Framework goes on to state that the relative sea level rise in England also depends on the local vertical movement of the land, which generally rises in the north-west. It is predicted the north-east of England will experience a 2.5mm net sea level rise per year until 2025. In making an assessment of the impact of climate change on flooding from land, rivers and the sea, guidance indicates that peak rainfall intensity for development likely to be undertaken between 2055 and 2085 is 20% and peak river flow between 2025 and 2115 is also expected to rise by 20%. If development is expected to extend past 2085, then a 30% increase in peak rainfall should be considered.
- 1.3 Provided the proposed drainage system for the Application makes allowance for an increase of 30% rainfall for climatic change, then the requirements of the Framework are satisfied.

Surface Water

- 1.4 The detailed arrangements for the management of surface water are included in the package of details from Stevenson Associates and comprise drawing SE20/D/1 with the supporting calculations on an unnumbered drawing.

Flood Risk Mitigation Measures

- 1.5 Although the footprint of the dwellings falls outside Flood Zones 2 and 3, the dwellings' proximity to these zones renders it practical to consider the following:

1/ Flood Warning

- Paragraph 19 of the Framework advises that proposals for new development must include details of flood warning and evacuation. To ensure that future occupants of the dwellings are aware of the correct actions to take in the event of flooding, it is suggested that a flood warning notice should form part of a welcome pack which will be distributed to the new owners upon purchase.

2/ Mitigation Measures

- New dwellings to have a finished floor level of at least 300mm above existing ground level.
- No ground floor sleeping accommodation within
- Watertight external door construction to minimum 350mm above floor level, letter box no lower than mid height.
- Ensure that all sockets will be served by wiring from the first floor loops and is situated 0.6 metres above floor level.
- Non-permeable areas outside the dwelling will be kept to a minimum.
- Solid ground floor construction