

PA/2017/610

FLOOD RISK ASSESSMENT  
TO ACCOMPANY A PLANNING APPLICATION FOR  
A DETACHED DWELLING

AT

(LAND ADJACENT TO)  
No. 2 MARSH ROAD  
CROWLE  
NORTH LINCOLNSHIRE  
DN17 4EU

BY

MR & MRS KENDELL

**SUPERSEDED**

DATE PREPARED: APRIL 2017

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*FRA produced only for use by the above applicant in  
connection with planning application April 2017*

Current planning policy requires that an assessment of flood risk (specific to the application site) is undertaken and that it be demonstrated that consideration has been given to:

- a) potential flood risk to the proposed properties and occupants
- b) potential increased flood risk to others as a result of the development.

Information has recently been obtained from North Lincolnshire's Strategic Flood Risk Assessment and also from the Environment Agency regarding potential flood risk in the area, anticipated flood levels and mitigation measures required. This information has been considered in the design of the building and adopted in this assessment.

#### THE AREA:

Crowle lies within an area defined by the SFRA as the Trent Valley. Much of the surrounding area was originally marshland, being reclaimed in the 16th and 17th centuries and water levels in the area are kept low by a system of drains and rivers maintained by either an I.D.B. or the E.A. and ultimately discharging to the Trent either by pump or gravity.

While some areas of the Isle of Axholme are located on high spots, there are large areas between the Trent and Crowle which are below 2.0 m AOD and it is these low-lying areas which would help by holding vast quantities of flood water in the event of a serious breach or overtopping of the Trent's defences.

#### POTENTIAL SOURCES OF FLOODING:

These would be the Trent as mentioned above (approximately 4 miles to the east of Crowle), Stainforth and Keadby Canal, Warming Drain, the two Soak Drains and other minor drains and ditches which are maintained by IDB's and discharge by pumped system to the Trent.

Water levels of all nearby watercourses are ultimately controlled by the pumped system and the level of the Trent. The Trent has excellent maintained flood defences providing a standard of tidal protection better than 0.5% annual probability while its fluvial defences are designed to provide a standard of 1.0% annual probability against fluvial events.

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## THE APPLICATION & SITE:

This application seeks approval for a single detached property with car parking to the front.

Levels have been taken based on Ordnance Survey bench mark data which show the site as being approximately 2.1 m AOD.

Though the site has no recent history of flooding, North Lincs. SFRA places it within Flood Zone 2/3(a) - medium to high probability of flooding.

The site has no known existing drainage problems.

## SEQUENTIAL & EXCEPTIONS TESTS:

Following guidance contained within the National Planning Policy Framework, Table 3 shows the development (classified as 'more vulnerable') to be acceptable if taking place within Flood Zone 2. Subject to satisfying the Exceptions Test, it would also be acceptable within Flood Zone 3a.

Considering the possibility of steering the development to a more suitable site outside flood zones 2/3 (within Flood Zone 1), enquiries (Rightmove.co.uk) revealed that only one alternative individual plot was being marketed in Crowle, this also being within the flood zone.

The proposal would benefit the local community during construction by providing employment for local tradesmen and suppliers and on completion by providing an efficient and affordable new home for the applicant and his wife, in close proximity to family and allowing them to continue to fulfil established work commitments locally.

## MITIGATION MEASURES:

Guidance received and measures adopted recently on other nearby sites are to be adopted as follows:

1. Ground floor levels to be set at 3.5m AOD with flood resistant construction materials used for all parts of the buildings below 4.1m AOD.
2. Boiler to be located above anticipated flood levels and electrical circuits to be split to allow safe isolation of ground floor outlets.
3. All surface water run-off will discharge to soakaways within the site and parking areas will be in permeable paving or will discharge to soakaways within the site. A linear cut-off drain will be provided to prevent surface water discharging onto the highway.

Any further mitigation measures put forward following the LPA's consultation with the Environment Agency will be implemented.

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