



FLOOR RISK ASSESSMENT

FOR THE

CONSTRUCTION OF A NEW OFFICE / STORAGE BUILDING

AT

GLENSIDE SOUTH
PINCHBECK
SPALDING
LINCOLNSHIRE
PE11 3SA

FOR

PUMPING SOLUTIONS LTD



FLOOD RISK ASSESSMENT

1: Location of Development

Company: Pumping Solutions Ltd

Address: Glenside South
Pinchbeck
Spalding
Lincolnshire
PE11 3SA

2. Brief Description of Development

Type of Development: Demolition of an existing derelict warehouse and construction of a new Office Building.

Approximate Size: 0.013 Hectares.

3. Appraisal

Position: No part of the development is within 9 metres measured horizontally from the foot of any bank of the landward side or where there is no bank is not within 9 metres measured horizontally from the top edge of the batter enclosing a river.

Flood Alleviation: Existing river embankments and open drains protect against flooding.

History: There is no recent history of flooding on the site.

4: Assessment

Physical Context: The site of the proposed development is adjacent to the B1180 know as Glenside South in Pinchbeck which runs along its Northern boundary. The junction with Northgate at Herring Bridge is close by to the East. The site overlooks the River Glen which is on the opposite side of the road to the North.

There is an existing Engineering Workshop on the Eastern boundary of the site with an adjacent derelict building on the Western boundary. The derelict building will be demolished to make way for the new development.

The site is bordered to the east and west by residential dwellings and to the south by open agricultural farm land.

The site generally slopes from the front to the rear boundary.

Flood Risk: Environment Agency advice states that the 'residual depth' flood risk hazard mapping contained within South Holland District Council's SFRA affects the proposed site and shows the consequences should a breach or overtopping of existing defences occur. This mapping shows that flood depths of up to 0.5m impact the application site when considering the 2115 0.5% breach scenario. The EA also highlights that South Holland's SFRA does not incorporate the new climate change allowances, as the document was published in 2010. Given that the SFRA uses now out of date climate change figures, it is likely that the relevant flood depths may in fact be worse.



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Advice:

Environment Agency advice recommends that the FFL should be set 500mm above ground levels if possible, with flood resilient construction used up to 300mm above floor levels. Flood resilient construction ensures that business can be operational quicker following a flood event. If it is not practicable to raise FFL to 500mm, then they must be set a minimum of 300mm above ground level, whilst an area of safe refuge will need to be incorporated that is located about the maximum flood depths. Alternatively, instead of a safe refuge area, an appropriate flood warning and evacuation strategy will need to be submitted to and approved in writing by the LPA.

5. Proposal

Floor Level:

Taking the above appraisal and advice into account, it is proposed to construct the new floor at 300mm above ground level at the front of the new building. With the natural fall in ground level from front to rear, this will ensure that the floor level at the rear of the building will be at least 500mm above ground level.

Area of Safe Refuge:

With the floor at the rear of building set at 500mm above ground level, this will enable an Area of Safe Refuge to be created adjacent to the rear fire exit and personnel door as indicated on the drawings.

Flood Resilience:

Flood resilient construction will be incorporated into the building up to a minimum height of 300mm above FFL including:

- All electrical wiring, sockets, electrical equipment, electrical heating units and the like will be fixed above 300mm above FFL.
- Closed cell insulation will be used on any pipework which is below the predicted flood level.
- Any boiler units and ancillary services will be installed above 300mm above FFL.
- All communications wiring will be installed above 300mm above FFL.