

**Flood Zone Report**

**For:**

**58 Main Street**

**Haverigg**

**Millom,**

**Cumbria LA18 4EY**

**On behalf of**

**Mr. & Mrs. Rogers**

**Flood Zone report for:**

**58 Main Street  
Haverigg  
Millom,  
Cumbria LA18 4EY**

(Here with known as the proposed extension)

**REPORT**

**Prepared by:**

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**As prepared for:**

Mr. & Mrs. Rogers  
32 Mainsgate,  
Millom,  
Cumbria.  
LA18 4JZ  
(Here with known as the Client)

## **1.0.0 Introduction**

**1.0.1** This report has been compiled owing to concerns regarding Flood risk by Copeland Borough Council, Development and Environment Department, The Copeland Centre, Whitehaven, Cumbria (here with known as the Local Authority)

## **2.0.0 Inception**

**2.0.1** As supplied by the Environment Agency, Cumbria County Council and Copeland Borough Council, the property at 58 Main Street, Haverigg is recorded within the Zone 3 Flood area, for which this was not affected by flooding within Haverigg on the 30th September 2017, against which the following record was produced by Cumbria County Council: In Haverigg 12 residential properties were affected by the flooding with 4 experiencing internal flooding and a further 8 experiencing external flooding. None of these properties were recorded on Main Street, Haverigg, for which; 58 Main Street, Haverigg, Millom, Cumbria (here with known as the proposed extension) at O.S. Map Ref: 315830/478752 (Eastings/Northings) is currently designated as a Zone 3 flood area

A report was prepared in 2007, by Jacobs for the Copeland Borough Council Strategic Flood Risk Assessment (SFRA) identifying Zone 3 areas for which the following was established for Zone 3a Flood risk areas: High Probability is defined as those areas of the Borough that are situated below (or within) the 1% AEP (100 year) fluvial flood extent and/or those within the 0.5% AEP (200 year) tidal flood extent. It is emphasised that the delineation of Zone 3 High Probability does NOT consider the

presence of raised defences. This is because defences do not remove the risk of flooding completely. There remains a risk that the constructed defences may fail, resulting in the rapid inundation of areas behind the defences.

A further report was prepared by Cumbria County Council, following the 2017 flooding, for which the draft copy has been attached.

**2.0.3** A Zone plan has been received from the Environment Agency Geographical Management System Flood Zone Survey showing the location of the proposed extension in relation to the flood zone, this plan is attached herewith.

### **3.0.0 Conclusion**

**3.0.1** That the proposed extension be constructed in such a way as to alleviate the potential for flooding within the structure and fabric of the property.

**3.0.2** That all external measures be put in place to divert potential flood flow away from the proposed extension and the main property and back into the watercourse.

**3.0.3** Prepare proposals to prevent ingress of potential flood water into new services including electrics, water supplies and foul water services.

**3.0.4** That there appears to be a local consensus relating to there being no knowledge of past flooding at the 58 Main Street, Haverigg following the clients communication with a family member who originally built (and until recently) resided at the property and that 'on face value' the potential for flooding is low with regard to the data supplied by the Environment Agency, Copeland Borough Council and Cumbria County Council reports, although

remedial measures are to be considered with further guidance by the Local authority, Environment Agency, Mains Electric supplier, Parish Council, Mains Water supplier, Waterways Authority and any other bodies/agencies as required, who have prepared reports and have local knowledge of the flood risk at 58 Main Street, Haverigg.

#### **4.0.0 Recommendations**

**4.0.1** That the proposed extension be constructed with the internal walls rendered to a height of 2000mm from finished excavated base level (being 300mm below finished floor level and 150mm below damp proof membrane) consisting of waterproof sand and cement render applied to the surface of the existing 'block/brick work wall, this render will be prepared to accept appropriate application of Sovereign Chemicals Heidi K11 slurry tanking compound, to be a continuous membrane applied to the aforementioned walls up to 2000mm and onto the concrete floor by 300mm (or as specified by the Tanking supplier) to form a continuous membrane creating a tub tanking system to return at door ways and seal at a sluice type barrier (as mentioned in item 4.0.2 below). If the membrane is to be punctured the appropriate remedial work is to be adhered to as per manufacturers written instructions.

**4.0.2** That a removable aluminium reinforced sluice type barrier be manufactured to be installed all external entrance doorways in the event of potential flood. This barrier must be designed to be collapsible with integral water tight seals and sealed channels fixed to the side and bottom of the door reveal. The barrier

must be no higher than 800mm and be stored at a location within the Proposal property near the doorways.

- 4.0.3** Excavate and install a 200mm wide by 200mm deep grilled channel be installed to run the complete length of the extension in front of each door way.

Recommendations contd/.....

- 4.0.4** All electrical wiring (fitted to Part P Building Regulations) must be brought down the walls from the first floor level with sockets being at a height of 800mm from finished floor level at ground floor only or at a maximum height allowed by current IEE

- 4.0.5** Wiring regulations. The consumer unit and mains supplies must be at first floor level. No lighting is to be installed below a height of 900mm

- 4.0.6** All water supply pipe work must be installed with pipes brought down from first floor level with hot water boiler placed at first floor level so as to prevent water contamination.

- 4.0.7** New foul water and surface water drains to be installed consisting of a none-return valve fitted at the over flow pipe and air admittance to prevent ingress of potential flood water.

- 4.1.0** See proposed None-return Valve:

Image of below ground none return valve:



Description:

Anti-Flood Valve Spigot/Socket for: 110mm Underground Drainage Pipe

Anti-flood non-return valves are an effective back flow prevention device used in both domestic and commercial applications, to stop reverse flow of foul and waste water from the drainage system. Typically used in low lying areas prone to flooding, protecting undersized sewers at high flow rates, on pump chambers and many more applications.

## **Appendix 1**

- 1. Agency Geographical Management System Flood Zone Survey**
- 2. Existing plans of the extension**
- 3. Proposed plans of the extension**
- 4. Site location plan at 1:1250 scale**

**NB. Some of the above is relevant to the Planning application only.**