Architectural Consultant

# Flood Resilient Measures

**Proposed single storey extension at:**

**96 Pennygate,**

**Spalding,**

**PE11 1NW**



As of 16th December 2024 it has been a requirement of Schedule 14, foot notes 62 & 63, of the National Planning Policy Framework that a flood risk assessment be produced for householder site which has been identified by the Environment Agency as falling within flood zones 2 or 3. The site of , 96 Pennygate, Spalding falls within flood zone 3 and therefore it is suggested that guidance from the document 'Improving the flood performance of new dwellings' CLG (2007) be implemented, ensuring that certain levels of flood resilience are incorporated from foundation up.

These measures have been incorporated into the design and can be summarised by the following sub-categories:

**Foundation Design -** Concrete blockwork below DPC that form any part of the foundation will be sealed using an impermeable material, either a prefabricates sheet membrane system or a fluid-applied membrane system, or encased in concrete.

**Floor Design –** The floor will be constructed of a ground bearing concrete slab (if suitable) of a thickness of 150mm over a layer of well compacted hardcore and blinding. A DPM of minimum 1200 gauge will be installed in strict accordance with the manufacturers details and a suitable closed cell insulation board will be used to ensure no loss of thermal performance.

**Wall Design -** Engineering bricks will be used up to DPC/floor level and facing brickwork above this will be installed with best practices in mind. The bricks will be installed frog up and all mortar joints will be fully filled to avoid water penetration. Aircrete blocks will be used to the inner leaf as these perform better in stopping water ingress.

**Windows and Doors –** All windows and doors will be manufactured from UPVC and will be sealed to aid with preventing water ingress. These will also be sealed against the structure of the building to a satisfactory manner for the same reason.

**Drainage Design –** Non return valves will be installed to all new drainage to prevent the back-flow of diluted sewage in to the drainage system within the building and site.



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