120327: Ramelton Historic Town Centre - Restorative & Transformational Public Realm Scheme Title: Flood Risk Screening Prepared by: Stuart Summerfield, CST Group Date: 14/01/2022

By reference to the CFRAMS flood maps for the subject area of Ramelton, it can be seen that the Tidal flood probabilities (Figure 1.1) encroach to the building line by 0.1% probability of flooding in the area of The Quays. The Fluvial Flood Map (Figure 1.2) indicated the buildings are just outside of the risk probability of flooding.



Figure 1.1 Tidal Flood Map



Figure 1.2 Fluvial Flood Map

Prevention of flooding from tidal events can only realistically be achieved by provision of flood defence mechanisms or raising the levels of the building to higher elevations than the modelled flood level. Raising of the buildings in this area is considered unrealistic. The provision of flood defence mechanisms is currently under investigation by others and is outside the scope of this scheme.

The public realm scheme does not propose to alter roads or building levels and therefore will not detrimentally impact on the current or future flooding occurrence.

The Fluvial Flood Maps do not indicate flooding of the buildings in the area, but some flooding of the roads and public space is shown on the 10% Fluvial AEP Event. This flooding is shown to include the estuary and therefore is assumed to occur in conjunction the tidal flooding events.

Any underground storm water attenuation installed in an attempt to slow the discharge of storm water runoff will need to be located at the lower end of the storm network. This will be adjacent to the outfall to the estuary/sea. This attenuation would simply be flooded by tidal water and storage would then not be available for surface water run-off.

It is envisaged the ongoing investigation and design of the flood relief scheme will include for raising of the quay wall and incorporation of one-way valves to prevent tidal water from backing up through the drainage network, and therefore no flood prevention works are proposed in this public realm scheme.