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Our Ref : TJW/OTT1

Date: 1 November 2019

Dear Christina,

FLOOD RISK AT TIPTON ST JOHN PRIMARY SCHOOL

Further to your recent enquiry, I have reviewed the historic flood risk assessment document that was prepared by my former colleague, Steve Moore, in 2014. Essentially, this document is still considered to be applicable to the school site in Tipton St. John.

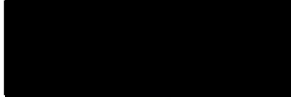
Given that this document was prepared approximately 5 years ago, there are a number of points to note in taking matters forward:

- The Environment Agency did undertake some minor improvement works, after 2014, to manage surface water issues on the Metcombe Brook in the area around Tipton Vale. These works will have a benefit in managing flows for lower order flood events on the Metcombe Brook, but will be insignificant for large order (i.e. more extreme) events on the Metcombe and all levels of flooding from the River Otter.
- The allowances for climate change have been updated since 2014, and would now predict increases in peak river flows in the order of 20% to 40% for the school development in future years. These figures would be based on the 2018 UK Climate Projections and represent a significant increase in risk.
- The Environment Agency's published flood maps have not changed since 2014. Further detailed analysis of the depth grid mapping shows flood depths approaching 1.0m for the design (i.e. 1-in-100 year) event, both in the lower school grounds and surrounding highway. Applying a moderate velocity to such depths readily classifies the hazard as a 'danger for all'.
- In accordance with Government Planning Policy, redevelopment of the school should be considered on the basis that it should be re-located to an area within Flood Zone 1 which is reasonably available. This aligns with the principles of the Sequential Test, which should be adopted by the Local Planning Authority when considering any such proposals.
- Redevelopment of the school on the existing site would not be considered a viable option for 5 key reasons:
 - The site would be classed as functional floodplain (i.e. flood zone 3b) where government guidance indicates that only water compatible and essential infrastructure should be permitted. Educational establishments do not fall under these categories.
 - The accepted principles for evacuation of children from primary schools, whereby a large number of supervising adults are required, would be unachievable, owing to the inability to source additional adult members.
 - One of the primary sources of flood risk is from the Metcombe Brook, where the ability to provide flood warnings, with adequate lead times to trigger evacuation plans, is very restrictive owing to the 'flashy' nature of the catchment.

- The Environment Agency adopts a general principle that buildings on stilts, to provide a suitable underfloor void for flood conveyance, are unsustainable.
- The nature of flooding on the surrounding approach roads indicates that there would not be access for emergency services in the event that the school building was used as a safe refuge.

The key message to reinforce is that the existing school site floods to a dangerous level and the ability to provide safe refuge and/or safe access and egress is not an option. The development is at high risk of flooding, and this risk will increase as a result of climate change. All efforts should be made to relocate the school to a safer location in accordance with Government planning policy.

Yours sincerely



Tom Walling.
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