MEMORANDUM

From: Chief Officer, Environment & Technical

Your Reference: P/2025/0337

To: Chief Officer, Economy and Planning

Our Reference: SAB/FUL/2025/0903

FAO: Jenni Perkins

Date: 10/10/2025

TOWN AND COUNTRY PLANNING ACT 1990

PROPOSAL
DEMOLITION OF TWO DOUBLE CLASSROOM BUILDINGS AND REPLACEMENT WITH A NEW 4 CLASSROM BLOCK FOR INFANTS/NEW NURSERY (PHASE 1). CONSTRUCTION OF NEW 4 BLOCK CLASSROOM FOR JUNIORS (PHASE 2)

Location
YSGOL ID HOOSON, HEOL CARADOC, RHOSLLANERCHRUGOG, WREXHAM, LL14 2DX

We refer to your consultation as per the email dated 02/10/2025 in respect of further information submitted in support of the above. This response is provided on behalf of the Lead Local Flood Authority (LLFA) in our role as the risk management authority for surface water and ordinary watercourse flooding.

The LLFA would like to continue to **OBJECT** as we do not feel that our concerns around the evacuation of the development in the event of a flood have been adequately addressed.

Proposed Flood Evacuation Route
The LLFA observes that the proposed evacuation route is via Heol Caradoc, Glanrafon and via a cut through to the car park located to the north west of the junction of Brook Street and Bonc Wen. It is noted that this is intended to be a pedestrian only route with the rights of vehicular access reserved for emergency vehicles only and it is assumed that this will also be used for staff egress from the site. The LLFA notes that our previous three responses noted that this route will be unsuitable and we will provide further comments on this below in light of the Flood Warning and Evacuation Plan being submitted.

Culvert Blockage Scenarios
We note that two culvert blockage scenarios can contribute to the flooding of Glanrafon along the evacuation route. The LLFA observes that neither of these blockage scenarios have been considered in regards to the consequences to the evacuation route. As such, the LLFA feel that is important that the LPA is given some context on the likelihood of flooding in this area.



Figure 1: A schematic showing the layout of the culvert system on the unnamed ordinary watercourse to the west of Glanrafon. It is noted that the main culvert conveys the water behind the houses towards the school site as shown by the green line. The overflow pipe conveys water to an open ditch section which enters an additional culvert under Glanrafon as shown by the blue line. It is also noted that the ditch to the west of the culvert discharges into the overflow channel.

The LLFA notes that the volume of water conveyed towards Glanrafon is controlled by a culvert headwall to the north of the school site and the north west of Glanrafon. When the water level exceeds the capacity of the main culvert pipe, the water level rises within the confines of the headwall and a discharge begins through the overflow pipe into the open channel which flows towards Glanrafon. It is noted that the flow in the ditch which runs northwards from the school site discharges into the open channel as it bypasses the headwall.

The LLFA notes that blockages of the inlet to the main culvert or a blockage within this culvert can cause the overtopping of this system. This is because the overflow pipe does not have sufficient capacity to convey all of the water within the ordinary watercourse if this occurs. In turn, this overtopping overwhelms the open channel and the subsequent culvert under Glanrafon which also overtops. This is the cause of the most recent flood event at this location on 16th October 2024. However, the LLFA also notes that a blockage in this second culvert would also result in the overtopping of the system without the failure of the upstream culvert asset. The LLFA observe that the flooding extents from such scenarios exceed those modelled in the Evacuation Plan and that water does flow down the evacuation route towards the Bonc Wen car park.



a) View towards Heol Carrodoc b) View away from Heol Carrodoc

Figure 2: Pictures showing the flooding extent from an overtopping scenario onto Glanrafon on 16th October 2024.



Figure 3: Further flood extents on the proposed evacuation route near No. 84 Glanrafon.

Flood Hazard Matrix

The LLFA would like to state in the strongest terms that any proposed evacuation route from a site classed as highly vulnerable development should remain flood free. The route that is presented in the evacuation route does not remain flood free even without the consideration of culvert blockage scenarios. As such, the LLFA do not consider it to be appropriate.

The LLFA accepts that the flood modelling provided shows an accurate depth model of the flood water should the culvert overtop. This is because the depth of the water is controlled by the kerb stones on the highway and the height of the soil in the verge. The LLFA believe that the maximum flood depth immediately adjacent to the culvert would be 0.23 m based on measurements taken on site. However, we are unable to accurately determine if this route falls within the tolerable limits outlined in Technical Advice Note 15 (TAN15) because no flood velocities have been provided. As such, we are unable to assess the proposals against the flood hazard matrix outlined in Figure 7 of TAN 15.

The LLFA notes that flood water velocities which are greater than 0.8 m/s at this depth would pose a danger to some under the hazard to people classification. This would include users of the site such as children, older people and people with disabilities.

Emergency Contact Details

It is noted by the LLFA that the emergency contact details provided in the plan are incorrect. It is noted that both the Flooding number of 0345 988 1188 and the NRW Incident Hotline number of 03000 65 3000 have been provided. These numbers should only be used to report flooding from a main river. It is noted that the source of the flooding affecting both the school and evacuation route is an ordinary watercourse. As such, the appropriate risk management authority to report this to would be Wrexham County Borough Council.

The developer is advised that the emergency number provided in the evacuation plan should be 01978 298989.

Conclusion

Given the above points that we have raised, the LLFA does not feel that the Flood Warning and Evacuation Plan is sufficient to remove our objection to this development as outlined in our response of 13/08/2025.

If you have any questions regarding the above, please do not hesitate to contact the team via flooding@wrexham.gov.uk.

Yours sincerely,

Cathryn Hughes
Technical Flood Risk Officer
Lead Local Flood Authority Team

On Behalf of:
Darren Williams, Chief Officer
Environment and Technical Department
Wrexham County Borough Council