hidayatullah hatami

From: Antony Rousou <antony.rousou@unda.co.uk>
Sent: 17 September 2026 16:55
To: Daud Chaudhry
Cc: Hamza Chaudhry; hidayatullah hatami
Subject: Land At St Marks Lane & Robin Hood Street, Manchester, M8 9GH (Our Ref: 93021 _Rev1)

Dear Daud,

Please find below a list of the LLFA comments with our responses. As requested, we have kept our responses brief. There are a couple of minor elements which would require updates to our report to address; we have not drawn attention to these within our response below. For us to provide a robust update to our report, we would require a response to the below.

A finalised drainage layout showing all components, outfalls, levels, finished floor levels and connectivity

1. MH4 and MH8 are junctions into the cellular storage and therefore no manholes are shown at these locations on the layout. MH10 is the Hydro-Brake manhole. All three references are labelled on the layout.
2. Although the gradients have been provided to a greater degree of accuracy than requested, they are still clearly shown on the layout.
3. The dimensions of the attenuation tank are shown within the notes on the layout, within our report and within the supporting calculations.
4. A north arrow is shown on the proposed site plan by ORYA Architectural Studios, which is also included within the appendix of our report.
5. The Hydro-Brake manhole is indicated on the drainage layout as MH10. The proposed discharge rate is stated within both the calculations and our report.

Runoff volume in the 1 in 100 year, 6 hours rainfall shall be constrained to a value as close as is reasonable practicable to the greenfield runoff volume for the same event, but never to exceed the runoff volume from the development site prior to redevelopment

As infiltration has been agreed to be unfeasible at this site, there is no practicable means of reducing the runoff volume through infiltration. The proposed drainage system instead provides attenuation and restricts the discharge rate from the site. On this basis, the runoff volume requirement is not considered to materially affect the proposed strategy.

Evidence that the drainage system has been designed (unless an area is designated to hold and/or convey water as part of the design) so that flooding does not occur during a 1 in 100 year rainfall event with allowance for 45% climate change in any part of a building

We have reviewed the hydraulic calculations and can confirm that MH5 does not flood during the 1 in 100 year plus 45% climate change event. The “Flood Risk” status shown within the calculations indicates that the water level is within a defined distance of the surface and does not indicate that flooding occurs.

Assessment of overland flow routes for extreme events that is diverted away from buildings (including basements). Overland flow routes need to be designed to convey the flood water in a safe manner in the event of a blockage or exceedance of the proposed drainage system capacity including inlet structures. A layout with overland flow routes needs to be presented with appreciation of these overland flow routes with regards to the properties on site and adjacent properties off site.

Exceedance routes are shown on the drainage layout under “Design Exceedance Route” and are also discussed within Paragraph 4.18 of our report.

Where surface water is connected to the public sewer, agreement in principle from United Utilities is required that there is adequate spare capacity in the existing system taking future development requirements into account. An email of acceptance of proposed flows and/or new connection will suffice.
An email from United Utilities is included within the appendix of our report confirming that, in principle, they will accept the proposed discharge rate of 0.9 l/s.

Hydraulic calculation of the proposed drainage system, including all engineering parameters
The hydraulic calculations demonstrate that no flooding occurs during the 1 in 100 year plus 45% climate change event. It therefore follows that flooding would also not occur during the lower return period events assessed.

Construction details of flow control and SuDS elements.
A typical cellular storage construction detail is shown on the proposed drainage layout.

Please note that I am on leave for the w/c 21st September so will pick this up upon my return, if required.

Please do not hesitate to ask if you have any questions.

Kind regards,

Antony Rousou, C.WEM MCIWEM | Senior Flood Risk and Drainage Consultant



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