

Director of Environment & Infrastructure:
Mark Kemp



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Lead Local Flood Authority
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Date 18 December 2018

RE: 6/2018/2768/OUTLINE - Hatfield Business Park, Hatfield, AL10 9SL

Dear Gerry,

Thank you for consulting us on the above application for outline permission for a large-scale mixed use development including 1,100 new homes and supporting infrastructure including a primary school, local centre and open space with all matters reserved.

The Flood Risk Assessment submitted by the applicant and carried out by Baynham Meikle Partnership Ltd, reference EB / 12011 dated 16 October 2018, and the information submitted in support of this application does not currently provide a suitable basis for assessment to be made of the flood risk arising from the proposed development. In order for the Lead Local Flood Authority to advise the relevant local planning authority that the site will not increase flood risk to the site and elsewhere and can provide appropriate sustainable drainage techniques, the following information is required as part of the flood risk assessment;

1. Clarification of volumes and discharge rates from the various catchment areas within the site.
2. Explanation of the phasing arrangements of the site and the strategic drainage scheme.

Overcoming our objection

To address the above points, please see the below comments;

We acknowledge that the current planning application is for outline permission. However it is important that certain details are confirmed to ensure that the most appropriate drainage scheme can be implemented to ensure there will be no flood risk to the site and the surrounding area and to demonstrate that an appropriate site strategic scheme using the key principles of SuDS are feasible.

Site investigations suggest that the ground conditions are such that clays will be encountered from depths of 0.4m and beyond up to depths of 3.5m with varying levels of groundwater. Therefore it is not proposed to infiltrate in this location.

We note that development has been divided into phases and a strategic scheme for the site has been proposed based on attenuation and discharge into the Ellenbrook. A number of swales and ponds have been proposed within the proposed site area in order to provide required attenuation storage for surface water. The flow from the proposed developments will be restricted to green field run-off rates for 1 in 1, 30 and 100 year plus climate change storm events. The total run-off from the site for 1 in 100 year event plus climate change has been calculated as 376l/s and has been spilt over six outfall locations. As it is proposed to provide a complex control, the run-off rates for the 1 in 1 year, 1 in 30 year should also be identified for each outfall location.

The drainage area plan identifies four catchments and their drainage areas, however the drawing does not include the northern parcel and part of the school site. We note that the drainage drawings shows an outfall from the northern parcel discharging directly to the watercourse at 38l/s however no other information has been provided in relation to the provision of the required attenuation volumes for this section of the site. The total required attenuation storage for 1 in 100 storm event plus 40% for climate change is approximately 24,500m³ however only 21,785m³ has been provided onsite. It should be confirmed how the additional volume will be provided onsite. We note a number of connecting swales have been proposed down the centre of the site. However it should be clarified whether the swales have been appropriately sized where it is proposed to utilise the cascade approach to discharge surface water for the various catchment. This information is required to ensure that the most appropriate volumes can be secured for a contributing area, as the details of future development are not yet known.

We have concerns regarding the phasing arrangements of the development and how the strategic drainage for the site will be delivered. The catchment areas should be generally in line with the phasing of the development. Therefore the timeframe for the phasing and construction of the strategic system should be clarified to ensure the masterplan infrastructure has been put in place in order to secure the feasible discharge locations for the various catchments. Should different catchments/sites come forward prior to the construction of strategic system an alternative means of discharge will have to be identified. A catchment/phasing plan should separate the site into a number of catchments and clearly show the estimated potential storage volumes/outfall rates required for each catchment for storm events up to the 1 in 100 year plus 40% for climate change events and how this is to be provided.

The use of a sub catchment approach with attenuation provided throughout the site rather than in one large feature would provide opportunities for the use of additional SuDS components which would provide source control and opportunities for additional management and treatment stages prior to the discharge. Surface water run-off from the Highway should go through a minimum of two stages of SuDS management treatment train.

Please note the Ellenbrook as referred to in FRA is classified as an ordinary watercourse. Any works proposed to be carried out that may affect the flow within an ordinary watercourse will require the prior written consent from the Lead Local Flood Authority

under Section 23 of the Land Drainage Act 1991. This includes any permanent and or temporary works regardless of any planning permission.

For further advice on Ordinary Watercourses, please visit our Ordinary Watercourse Webpage on the link below;

<https://www.hertfordshire.gov.uk/services/recycling-waste-and-environment/water/ordinary-watercourses/ordinary-watercourses.aspx#>

For further advice on what we expect to be contained within the FRA to support a planning application, please refer to our Developers Guide and Checklist on our surface water drainage webpage

<https://www.hertfordshire.gov.uk/services/recycling-waste-and-environment/water/flooding-in-hertfordshire.aspx>

Informative to the LPA

We ask to be re-consulted with the results of the FRA. We will provide you with bespoke comments within 21 days of receiving formal re-consultation. Our objection will be maintained until an adequate FRA has been submitted.

Please note if the LPA decides to grant planning permission we wish to be notified for our records should there be any subsequent surface water flooding that we may be required to investigate as a result of the new development.

Yours sincerely,

Sana Ahmed

Sustainable Drainage Systems Officer
Environmental Resource Planning