
From: Bushnell, Adam (E,I&S)
Sent: 21 March 2022 16:14
To: Planning (SMDC)
Cc: Curley, Jane
Subject: Re: Planning application ref. no. SMD/2021/0694 - Development of 75 new dwellings, new access, provision of green infrastructure and associated works at Ash Bank Road - LLFA Response.

Categories:

Good Afternoon,

FAO: Case Officer Jane Curley.

Re: Planning application ref. no. SMD/2021/0694 - Development of 75 new dwellings, new access, provision of green infrastructure and associated works at Ash Bank Road - LLFA Response.

Thank you for your email and consultation with regard the above development. My comments are as follows:

We still recommend that planning permission is **not granted** at this time, as there continues to be insufficient evidence to suggest that a satisfactory drainage strategy is proposed.

Infiltration Testing

As previously requested, as the development proposes infiltration as a means of surface water discharge, please can the LLFA request that infiltration testing in full concordance with BRE 365 is carried out. A testing report should be submitted evidencing this satisfactory testing for our review.

Hydraulic Modelling

I would like to seek clarification and highlight a few points regarding the hydraulic model (MicroDrainage). The model reports suggest that there are some areas of the model and parameters that may need addressing.

FSR Rainfall

It is industry best practice to utilise the most appropriate rainfall study data method for a location. Generally, the most up-to-date data method is FEH data- this is accessible from the FEH WebService where data can be downloaded. The LLFA requires the applicant to utilise the most accurate method- and so either FEH data should be used, or a valid reason should be provided as to why not. FSR data may not provide the best model outputs. Please can the LLFA request that this is addressed.

Pipes surcharging in a 1 in 2 year return period storm event.

The LLFA also notes that the proposed model submitted by the applicant references pipe surcharging in 1 in 2 year return period storms. This is not acceptable. Please therefore can the model be further developed so there is no surcharging in the 1 in 1 and 1 in 2 year return period scenarios.

Critical Storm Durations

Please can we request that only the critical duration storms are submitted. We do not require all storms for each return period. Please, once the model is revised and amended, can we request that only the worst case scenario critical storm report is provided. This will aid our review greatly.

Impermeable Area Plan

Although the applicant has submitted an impermeable area plan, it still remains unclear as to how much area is contributing to each pipe/manhole. Please can this be addressed and a more clear diagram, referencing individual pipes/manholes be provided. This will greatly aid our review.

Pipe flow velocities

It is noted that in certain locations, pipe flow velocities seem to be over 3 m/s. We note that this may be an issue- please can we request that the system is redesigned and remodelled so that this is addressed.

Stability Assessment- Graphs

In order to evidence that the hydraulic model for the system is stable, please can the LLFA request that graphical outputs are provided from the MicroDrainage software for each 'worst case' scenario for each pipe. This should evidence a clear curve with minimal oscillation.

The above points may not necessarily be exhaustive. Once they have satisfactorily been addressed, we would welcome re-consultation with amended details.

Should you have any queries, please contact flood.team@staffordshire.gov.uk

Many thanks again.



Kind regards,

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