

**Ref: C2244\_2**

**Date: 01.11.23**

**Re: Environment Agency Position: Objection**

Dear Planning Team,

We write with reference to the current planning application APP/23/00193 for the part demolition and part redevelopment of existing buildings and change of use from class a2, b1(c) and b8 to c3 use with the construction of 7 town house dwellings and 10 apartments, at the land rear of and 15a-15c South Street, Havant.

This letter has been written in response to the request for additional information raised by the Environment Agency (EA) on the 15<sup>th</sup> August 2023 (letter reference HA/2023/124969/02-L01) in respect to flood risk to the propose development. Our responses to each point are presented below.

- **Setting of Finish Floor Levels to 8.60mAOD.**

As stated with in the EA letter response, the EA have provided a present-day Flood Zone 3 flood Level of 8.0mAOD, and used an additional 600mm allowance to determine the Design Flood Level (DFL) for the development (noting the DFL for the development is the 1 in 100 year plus climate change).

Without more up to date information, we agree with the EA's methodology for estimating the Design Flood Level of 8.60mAOD.

- **Flood Plain Storage Compensation.**

In the present day DFE, the EA have designated the DFL as being 8.0mAOD. The majority of the site is above 8.0mAOD and therefore when comparing against the provided topographic survey, there is no loss in flood plain storage for the present-day Flood Zone 3 event.

To calculate the pre and post development flood storage Autodesk Civil 3D has been utilised via the following:

- 1) The Topographic Survey was converted into a TIN Surface.
- 2) A second TIN surface with a single elevation of 8.60mAOD was created to emulate the DFL.
- 3) A third TIN surface was created for the post development scenario, with the FFL set to no lower than 8.60mAOD for all new buildings or residential uses, and the external levels designed to result in a no net loss of flood plain storage.
- 4) Using the 'Create New Volume Surface' the volumetric difference between the existing TIN surface and the DFL surface was calculated.
- 5) This was repeated for the post development scenario, with the volumetric difference taken between the proposed TIN surface and the DFL surface.

The drawing (reference 1416\_FSC01) attached presents the results of this process and demonstrates that a no net loss of flood plain storage can be achieved. However, there will be a requirement to reduce ground levels within the carparking area marginally to meet this requirement. Proposed external levels are shown on the attached.

We trust this information is sufficient to address the information request from the EA and to resolve the outstanding flood risk related concerns so that the application can now move forward.

Should you have any further questions, we would welcome a meeting to discuss further to clarify our assessment.

Regards,

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