

Cherwell District Council
Planning & Development Services
Bodicote House White Post Road
Bodicote
Banbury
OX15 4AA

Our ref: WA/2021/129266/05-L01
Your ref: 21/02286/F
Date: 09 January 2023

Dear Sir/Madam

Construction of a coffee unit with drive-thru facility and indoor seating with associated access, car parking, landscaping and servicing parking

Land north west of Launton Road roundabout adjoining Skimmingdish Lane, Caversfield

Thank you for consulting us on the above application following the submission of additional details. We have reviewed the submitted Flood Risk Assessment reference 680020-R1(03)-FRA, revision 03, dated 11 October 2022 and prepared by RSK. Also, further to our previous response dated 2nd September 2022, the applicant submitted additional information to us in response to our concerns with the flood risk modelling being used to inform their Flood Risk Assessment. We have also completed a review of this additional flood risk modelling information.

Environment Agency position

The amended Flood Risk Assessment (03) and supporting letter (reference P680020-FRA L04, dated 11 October 2022, prepared by RSK LDE) do not satisfactorily address our earlier concerns. We therefore **maintain our objection**.

The additional flood risk modelling information submitted by the applicant also remains unsuitable to inform the Flood Risk Assessment for this development.

Upon reviewing the latest flood risk modelling information, we have identified that the applicants modelling does not follow recommended modelling and software manufacturers guidance in relation to timesteps. We acknowledge that we should have raised this previously and therefore offer our apologies for this oversight. In order to identify whether this is likely to be a significant matter, we completed a model simulation test following the recommended guidance and we have concluded that the maximum flood water levels are greater than currently predicted by the applicant as follows:

Model run	Flood event	Flood level
Applicant provided timestep	1% AEP plus 4% CC	69.65mAOD
	1% AEP plus 35% CC	69.75mAOD
Timestep in line with	1% AEP plus 4% CC	69.79mAOD
guidance	1% AEP plus 35% CC	69.85mAOD

Our results indicate that the flood water levels are sensitive to selected timestep (as can be expected and as stated by the guidelines), with flood levels increasing by approximately 0.1 to 0.14 metres. We consider this is significant enough to need addressing by the applicant. Please see item 6.1 in the attached review spreadsheet for more information.

The applicant may wish to revise the modelling in accordance with the published guidance, however, to assist with a speedier resolution to this problem, we would be agreeable to the applicant using the flood levels we have calculated as a basis for informing their Flood Risk Assessment.

When the application was originally submitted, government guidance on the consideration of climate change required applicants to allow for a 35% increase in river flood conditions and the flood mitigation for this development was originally designed to this level. However, climate change allowance guidance has since been revised to account for peak river flows on a catchment basis. The climate change allowance for this area, for the anticipated lifespan of this development (25 years as identified by the applicant), is 4%. However, the current guidance also identifies that peak river flows for the current epoch (2020s) is expected to be higher at 6% and we have asked the applicant to account for this within their mitigation. To identify the 6% flood level, the applicant can undertake their own revisions to the flood risk model or, we would again be satisfied in this one instance, for an estimate to be calculated based on our 4% test model flood level of 69.79m AOD.

As we are anticipating that the 6% climate change flood level will be higher than that currently identified by the applicant, the mitigation currently proposed will not sufficiently reduce the impact of flooding created by this development. For example, finished floor levels are currently proposed to be set to 69.75 mAOD which is below our calculated 4% climate change level and will most certainly be below the 6% climate change flood level which is yet to be determined. This means the development would be at risk of flooding internally.

In addition, the applicant's flood mitigation scheme, which is a combination of level for level flood compensation and storage tanks, must be revised to account for the higher climate change flood level in order to ensure the proposal can replace lost flood storage on a level for level basis and that the storage tanks will operate in the correct way to reduce the flood risk impact. Also, the applicant has still not demonstrated that the level for level compensation scheme will be hydraulically connected. We previously requested a plan/s which clearly mark the extents of each compensation slice so we can visually see how they would be hydraulically connected. This has not been provided. The submitted supporting letter (reference P680020-FRA L04, dated 11 October 2022, prepared by RSK LDE) states: '*we have assessed the situation and removed the kerb from the development proposals (highlighted location in the above extract) to aid in the hydraulic connectivity between the site and the flood plain*'. However, from the plans submitted it can still not be seen if each slice of the level for level compensation scheme is hydraulically connected. This is required to ensure the compensation scheme can

function over a range of flood events up to and including the relevant climate change event.

Further, the tank openings appear to be set at the wrong level for the flood band they are intended to be mitigating for. The applicant should explain why the tank openings are not provided at the bottom or middle of the relevant flood level band. These levels will also need to be revised in line with agreed flood levels for the site.

Closing comments

If you are minded to approve the application contrary to our objection, please contact us to explain why material considerations outweigh our objection. This will allow us to make further representations. Should our objection be removed, it is likely we will recommend the inclusion of a condition/conditions on any subsequent approval.

Please refer to our previous response dated 13 September 2021 for additional advice.

Should you require any additional information, or wish to discuss these matters further, please do not hesitate to contact me on the number below.

Yours faithfully

Miss Sarah Green
Sustainable Places - Planning Advisor

Direct dial 0208 474 9253

Direct e-mail planning_THM@environment-agency.gov.uk

Enc. Environment Agency flood risk model review comments_6th review