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SL6 1QS

**Our ref:** WA/2021/128675/02-L01  
**Your ref:** 20/03450/FULL  
**Date:** 02 June 2021

Dear Claire

**Construction of 16 x one bedroom dwellings; 19 x two bedroom dwellings; 17 x three bedroom dwellings; 28 x four bedroom dwellings, bin storage, associated landscaping and parking, new access from Ray Mill Road East and public open space**

**Land to the south of 18 to 20 and open space to the south of Ray Mill Road East Maidenhead**

Thank you for re-consulting us on the above application on 20 April 2021, following the submission of additional flood risk information.

### **Environment Agency position**

The submitted flood risk assessment (FRA) Addendum (reference133073-R1(2)-EA Addendum 1, dated 14 April 2021 and prepared by RSK) does not satisfactorily address our earlier concerns. We therefore **maintain our objection** set out in our response dated 8 February 2021.

### **Reasons**

Please read the following comments alongside our letter dated 8 February 2021.

#### Flood data and climate change

The applicant questions why there is a range of flood levels across the site and have stated they propose to use the lower range of flood levels between 24.74mAOD and 24.76mAOD for the entire site. It is our view that the corresponding flood level relevant to a particular part of the site should be used. The Lower Thames 2019 flood model is a 1D/2D model. The 2D domain is divided by a number of grids and each grid calculates velocity, depths and levels. Factors such as surface roughness influence the calculation and resulting flood level for that grid.

#### Floodplain storage and compensation

The applicant has set out that they cannot provide direct level for level floodplain compensation up to the 1% annual exceedance probability (AEP) flood with a 35%

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allowance for climate change. The applicant explains that there will be loss of 29.4m<sup>3</sup> in the higher order flood events.

The applicant proposes two scenarios to address the loss of floodplain storage from the development, both of which do not provide level for level compensation up to the 1% AEP flood with a 35% allowance for climate change. The applicant describes the loss of floodplain storage in the context of the wider Thames floodplain as 'negligible'. However, this does not consider local flood mechanisms and potential impacts locally. Losses of flood storage also contribute cumulatively to increased flood risk. National policy (paragraphs 160 and 163 of the NPPF) is clear that flood risk should not be increased elsewhere.

The applicant has explained that underfloor voids will be required to offset flood volumes alongside the proposed floodplain compensation. Paragraph 2.4.9 of the supporting text of policy F1 in your adopted Local Plan states '*The use of pier foundations will not be acceptable as a means of overcoming an objection to a proposal on the grounds of Policy F1. In the past, where this form of design solution has been allowed, problems have resulted from the inability of the planning authority to ensure that the voids beneath the building are not obstructed by domestic effects or by flood debris.*'

Paragraph 2.4.10 goes on to state '*Flood compensation schemes may be considered acceptable but must be carried out on a level for level basis which fully accommodates flood flows and storage and should improve upon the predevelopment situation.*'

The applicant has confirmed that direct level for level floodplain compensation cannot be provided up to the 1% annual exceedance probability (AEP) flood with a 35% allowance for climate change. You, as the Local Planning Authority, should determine whether or not alternative mitigation measures (such as voids) are appropriate in this instance. If alternative mitigation measures are not appropriate, planning permission should be refused due to loss of floodplain storage resulting in an increase in flood risk elsewhere, contrary to paragraphs 160 and 163 of the NPPF, policy F1 of the Royal Borough of Windsor and Maidenhead Local Plan (Incorporating Alterations, adopted June 2003) and emerging policy NR1 of the Borough Local Plan 2013-2033. An increase in flood risk in this area would be particularly concerning as the application site is surrounded by existing residential dwellings.

If alternative mitigation measures, such as voids, are deemed appropriate in this instance, the second part of the flood risk exception test has still not been passed as it has not been demonstrated that flood risk will not be increased elsewhere, and we maintain our objection. We have set out the reasons why below:

- Level for level compensation  
The level for level element of the floodplain compensation scheme should be revised to take into account the different 1% AEP plus a 35% allowance for climate change flood levels across the site (as explained above). This would identify, and allow mitigation to be provided for, any loss of floodplain storage in the higher order flood events (levels of up to 27.91 m AOD in some locations) that has not yet been taken into account.
- Use of voids  
The applicant explains that the voids will be constructed with the opening up to the 1% AEP 'plus additional relevant climate change allowance', and be 1 metre wide with an opening every five metres. The plan referenced in Appendix C of

this addendum letter (drawing number ZZ-SE-DR-A-XX-003, revision P1, dated 29 August 2019) shows the typical section through the void and references the 1% AEP plus a 35% allowance for climate change flood level to be 24.56 m AOD. This is not the correct 1% AEP with a 35% allowance for climate change flood level/s. As the correct climate change flood level/s is higher than 24.56 m AOD, the voids would not provide sufficient mitigation and there would be a loss of floodplain storage as a result of the proposed development. Further, the voids would not be providing direct mitigation for the loss of floodplain storage in the higher order flood events not mitigated for through level for level compensation (when flood levels exceed 24.66 m AOD).

Therefore drawing number ZZ-SE-DR-A-XX-003 and any relevant elevational drawings should be updated to show that the underside of the void is to be set at the appropriate 1% AEP plus a 35% allowance for climate change flood level/s.

- Floodplain compensation proposed in residential gardens

We have previously highlighted that we have concerns with regard to floodplain compensation across future occupier's gardens. Not only for the reason of potential impedance of flows but future structures that could be installed under permitted development rights all have the potential to impede flow or reduce floodplain storage. The applicant has explained they consider they can address floodplain compensation being provided in occupier's gardens by the use of planning conditions and an Article 4 direction. They have explained that there would be regular inspection of levels and structures carried out by the management company over the lifetime of the development. Having flood mitigation in this way may result in a breakdown of the effectiveness of the mitigation over the lifetime of the development. It could also result in the need for the council to be involved with potential future enforcement to restore flood mitigation for the development.

It is for you, as the Local Planning Authority, to determine if floodplain compensation in residential gardens is appropriate and enforceable for the lifetime of the development. Please see our letter dated 8 February 2021 for more information on this issue.

- Proposed raised road and proposed culvert under the proposed new road

In previous correspondence we have raised concern with the proposed raised road across the eastern side of the developable site. The applicant has proposed to include a culvert through the road for hydraulic connectivity to the compensation area on the other side of the access road. We have previously made comment about raised embankments across the floodplain and the potential to impede flood flow. It has not been demonstrated that the proposed culvert would allow for the free flow of flood water through the raised road, which is required to prevent an increase in flood risk elsewhere.

Typically we would require these types of structures to be robustly assessed to establish whether they pose any offsite detriment. The applicant has undertaken a calculation of the void opening. However, the updated Thames flood model is a 1D/ 2D flood model so the structure should be tested in the model to assess whether the structure would increase risk offsite up to the 1% AEP with a 35% allowance for climate change flood event. If the applicant were to undertake this assessment the grid resolution in the model would need to be reduced to a 5m grid.

- Boundary treatments

The boundary treatment plans shows boundary walls and fencing throughout the development and across areas that are proposed for floodplain compensation. Walls and fencing are proposed between proposed dwellings and to divide plots, which has the potential to impede flood flow across the development site. The applicant explains that permeable fencing will be installed across the site. However, no details on this have been supplied. Moreover, when examining the submitted elevations, the fencing and walls do not appear to be permeable in design.

### **Overcoming our objection**

To overcome our objection, the applicant should submit a revised FRA which addresses the points highlighted above. Please see our letter dated 8 February 2021 for more information.

If this cannot be achieved, we are likely to maintain our objection. Please re-consult us on any revised FRA submitted and we'll respond within 21 days of receiving it.

### **Advice to Planning Authority**

#### Safe access and egress

Please be aware that Appendix J in the FRA shows offsite level analysis for the access route. This shows flood water depths along the proposed route.

Please see our letter dated 8 February 2021 for more information on this and our other advisory comments.

### **Final comments**

Once again, thank you for contacting us. Our comments are based on our available records and the information as submitted to us. Should you require any additional information, or wish to discuss these matters further, please do not hesitate to contact me on the number below.

**If you are minded to approve the application contrary to this advice, we request that you contact us to allow further discussion and/or representations from us in line with the Town and Country Planning (Consultation) (England) Direction 2021.**

In accordance with the planning practice guidance (determining a planning application, paragraph 019), please notify us by email within two weeks of a decision being made or application withdrawn. Please provide us with a URL of the decision notice, or an electronic copy of the decision notice or outcome.

Yours sincerely

**Ms Helen Sanderson**  
**Planning Advisor**

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