

Project:	AEG6585_RH16_HaywardsHeath		
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Revision: -	Addendum	Date:	18 December 2024

Introduction

Aegaea have previously produced a Flood Risk Assessment (FRA) for the proposed development at 17 Blackthorns, Haywards Heath, Mid Sussex, West Sussex, RH16 2AX (AEG6585_RH16_HaywardsHeath_01, 26/11/2024).

On submission of the FRA as part of the planning application (MSDC Ref DM/24/2219), the MSDC Drainage Team have provided a consultation response, stating:

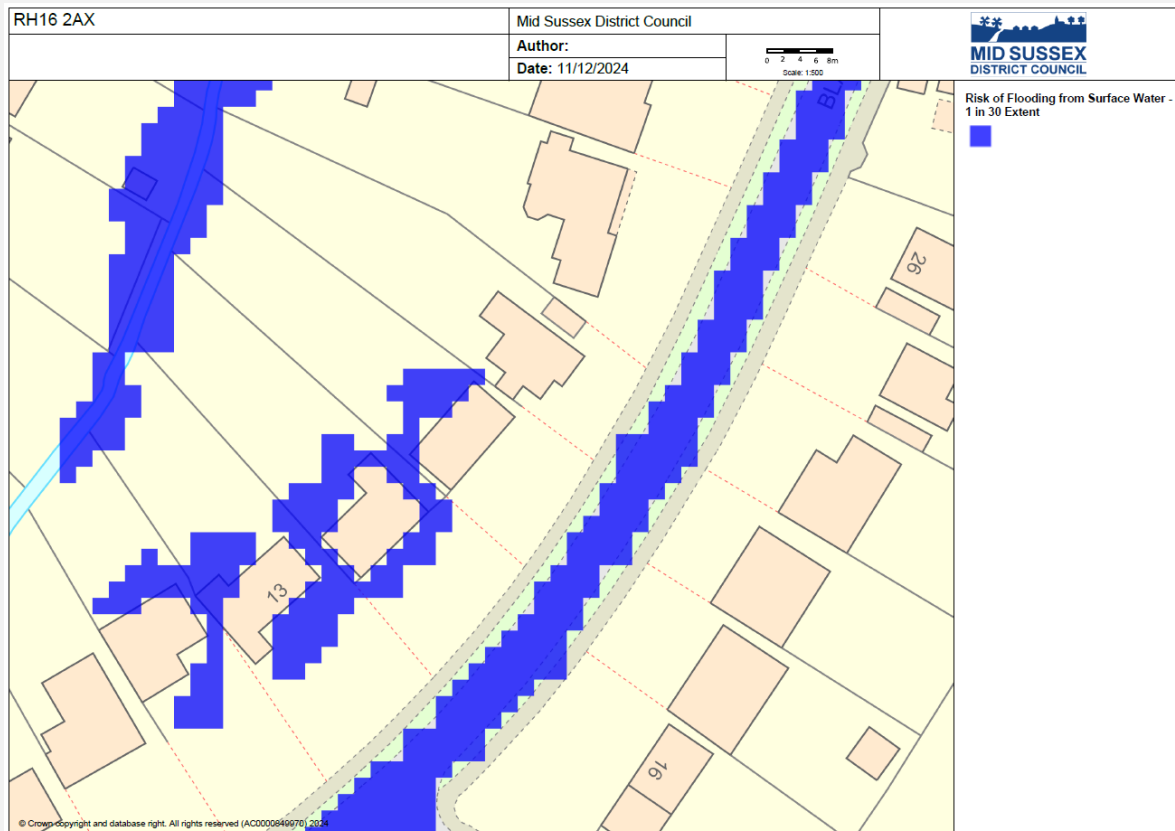
...The proposed development site is located within an area impacted by the 1:30, 1:100 and 1:1,000 flood events (high, medium, and low surface water flood risk). Following the approach set out under the NPPF for assessing fluvial flood risk (flood zones) this area would be considered consistent with Flood Zone 3b (1:30 extent), Flood Zone 3a (1:100 extent), and Flood Zone 2 (1:1000 extent)...

Annual exceedance	Flood Zone	Surface Water Flood Risk
Greater than 3.3% (>1:30-year)	3b	High
Between 1% and 3.3% (1:100-year and 1:30-year)	3a	Medium
Between 0.1% and 1% (1:1,000-year and 1:100-year)	2	Low
Less than 0.1% (<1:1,000-year)	1	Very Low

...The Mid Sussex's Strategic Flood Risk Assessment provides guidance on when areas should be considered functional flood plain (Flood Zone 3b), these are:

- All areas within present-day Flood Zone 3*
- Any land impacted by the 1:30 flood extent or designed to flood during a 1:100 event, and*
- Areas of high surface water flood risk (1:30 extent)*

Based on the latest guidance that all sources of flooding should be considered consistently the site meets one of the reasons an area would be considered functional floodplain (Flood Zone 3b); it's location within the 1:30 surface water flood extent.



The proposed development is a 'more vulnerable' development.

It is the Flood Risk and Drainage Team's findings that, following the latest guidance on assessing flood risk the site is located within the equivalent of Flood Zone 3b (1:30 flood extent) and the proposed development is a more vulnerable development.

As per the Environment Agency standing advice for minor extensions, development within the 1:30 flood extent is not permissible. In the event that the proposal is outside of this extent then additional resistance and resilience mitigation will need to be evidenced at this location, as this development is classified as 'more vulnerable'

In addition, the Flood and Drainage Team would have no objection to the scheme if surface water modelling can be provided which demonstrates that the development design ensures that, for the 1:100 year + climate change event:

- Site users are safe in the event of a flood

- *There is no loss of floodplain storage*
- *There is no impedance of overland flows*
- *There is no increase in flood risk*

Receipt of the requested additional information does not mean further information will not be requested, nor does it guarantee that the Flood Risk and Drainage Team will not object to the development. Neither does it prevent the team from recommending a flood risk or drainage condition.

It is acknowledged in agreement with the MSDC Drainage Team that based on the EA's Risk of Flooding from Surface Water (RoFSW) dataset, the rear of the property, at the location of the proposed extension, could be affected in the modelled 1 in 30 year event. This is noted in Paragraph 4.16 of the submitted FRA.

However, as also noted in Paragraphs 4.17 to 4.20 of the FRA, Aegaea believe the EA RoFSW mapping to be erroneous at this location.

It is important to note that the surface water mapping suggests a lower ground elevation to the rear of the property, therefore a 'High Risk' is shown in this area with ponding up against the footprint of the existing dwelling (Figure 1). We believe this to be incorrect and the rationale for this is discussed further below.



Figure 1: EA Surface Water Flood Risk Mapping – High Risk Extent (Base map from Google Hybrid ©. Contains public sector information licensed under the Open Government Licence v3.0)

As seen through Figure 6 of the FRA (Figure 2 below) the modelled 1 in 30 year probability event shows surface water flood depths of between 150mm and 300mm at the location of the proposed rear extension.



Figure 2: EA Surface Water Flood Risk Mapping – 1 in 30 year Flood Depths (Base map from Google Hybrid ©. Contains public sector information licensed under the Open Government Licence v3.0)

This area of ponding at the rear of the footprint is likely derived in the RoFSW model from the EA's LiDAR data, which has a potential vertical discrepancy of +/- 15cm in some areas. A section through the EA's LiDAR at the site is presented in Figure 3 below. It can be seen from Figure 3 that the LiDAR suggests that there is a circa 200mm drop in ground levels from the grassed area of the garden down to the dwelling.

However, this is clearly not the case as seen from the submitted photo sheet within the architects plans within the FRA. The architect plan photos 1 to 3 (which can be found in Appendix A of the FRA and are provided in Figure 4 below for ease of reference) shows the patio area to the rear of the property to be flat. Therefore, there is likely a post-processing error within the EA's LiDAR, and thus the RoFSW model represents an inaccurate scenario, not reflecting the actual topography of the site.

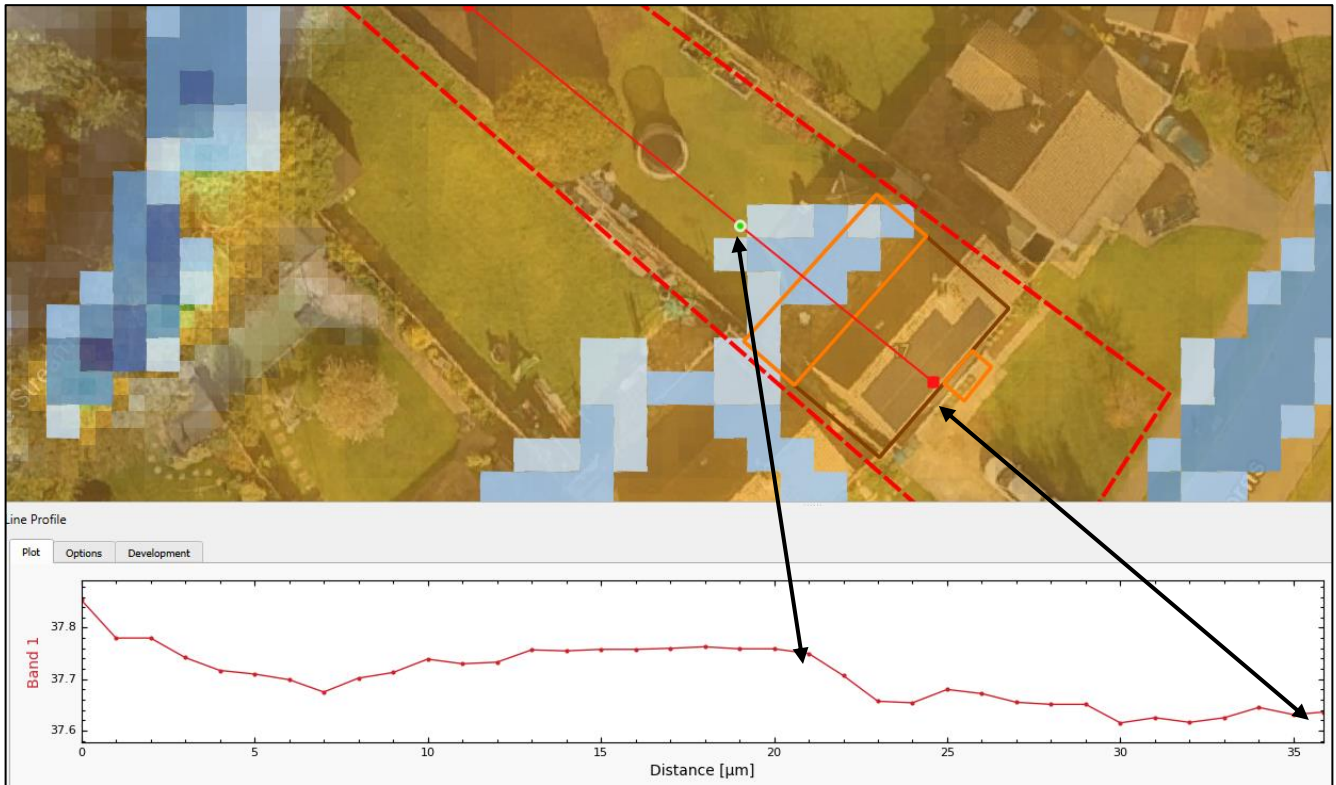


Figure 3: Cross section through EA 1m LiDAR and EA Surface Water Flood Risk Mapping – 1 in 30 year Flood Depths (Base map from Google Hybrid ©. Contains public sector information licensed under the Open Government Licence v3.0)

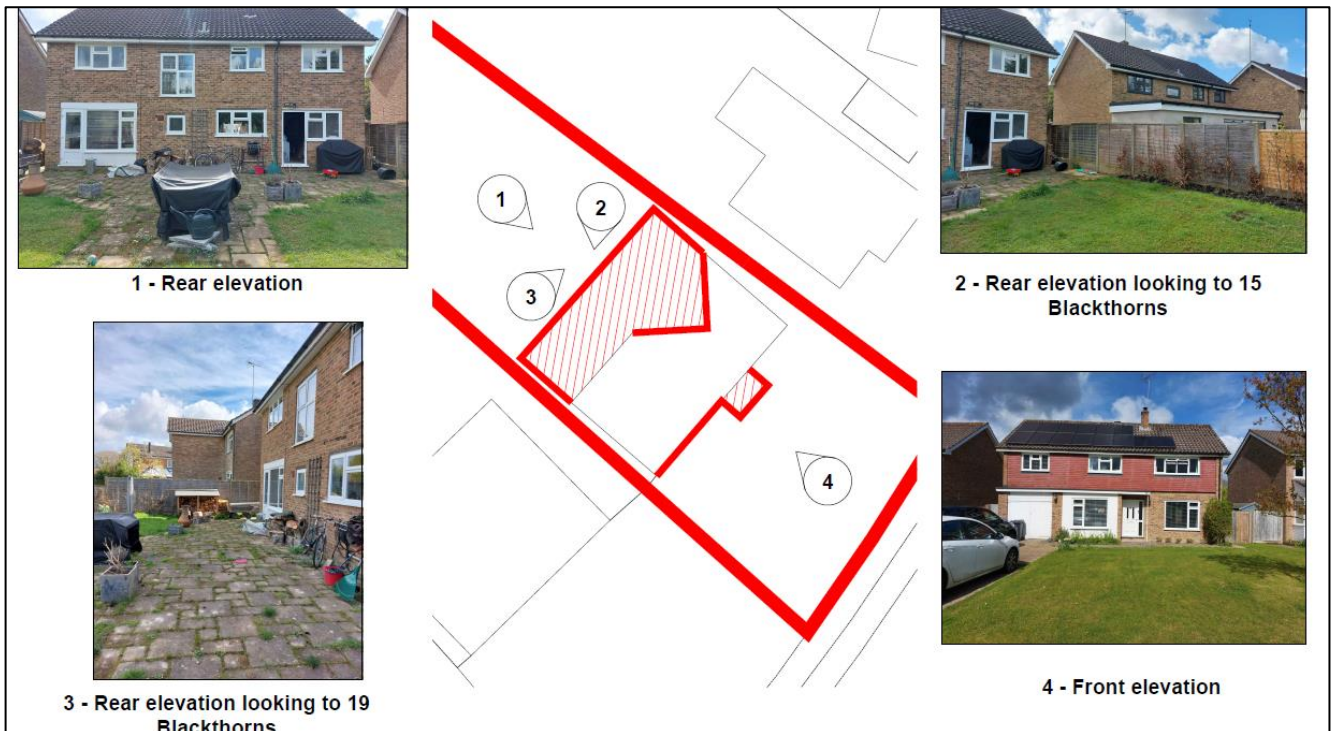


Figure 4: Photos of existing dwelling. It can be seen that the existing rear patio is not lower than the remainder of the grass area of the garden. Source – DMA Building Design.

Therefore, the area to the rear of the property at a 'High Risk'/ affected in the modelled 1 in 30 year event within the RoFSW dataset appears to be erroneous.

While a model could be produced to evidence that the RoFSW mapping is erroneous, this feels excessive and onerous for a minor extension of this scale and nature in light of the clear information outlined above.

We trust that this additional information presented is sufficient for MSDC Drainage Team to remove their objection to DM/24/2219 but we would be happy to discuss further on a call if necessary. If the MSDC Drainage Team are minded to agree with the additional information set out in this Addendum, Aegaea can then provide an updated FRA detailing this information and provide the additional information regarding "additional resistance and resilience mitigation" as requested by MSDC.

Kind regards,

[Redacted Signature]

[Redacted Name]

Manager and Lead Flood Risk Consultant

[Redacted Contact Information]