JOFLOWS

Adur & Worthing Councils
c/o Sustainable Water Management Officer (WSP UK Ltd)
Your Ref.: 'Letter 22 November 2024' by WSP UK Ltd
Application ref.: AWDM/1030/24

Our Ref: JOF0123-LTR-XXX-001 REV (-)

8 December 2024

Dear Sir/Madam:

Clarification letter to LPA's comments (22/11/2024), as part of planning application ref. AWDM/1030/24

We are writing in response to the Local planning Authority's comments ref. 'Letter 22 November 2024 (y WSP UK Ltd' (hereafter referred as the 'Letter'), as part of planning application ref. 'AWDM/1030/24'. The Letter requires further clarification on a i) potential displacement of off-site generated surface water flood volume and ii) demonstration that the proposed development will not lead to the obstruction of flow paths and increase flood risk to nearby residential properties.

This letter should be read in conjunction with a new updated revision of the Flood Risk Assessment by Joflows (ref.: **JOF0123-RP-FRA-001 REV 01**, December 2024), hereafter referred to as 'the New Revision of the FRA'.

The proposed development is for the erection of a Ancillary Storage room to partially infill the yard between the existing main workshop store and the garage store room.

Following the receipt of the Letter from the Local Planning Authority, the New Revision of the FRA was updated and states that after review of the of the EA's Long-Term Flood Risk Maps, it is not clear how the surface water flood mechanism area behaves. It is possible that flows travelling from Connaught Avenue into Orchard Close overflow into the gardens at the rear of Old Shoreham Road via the Application Site, but it is also possible that flows that reach the rear gardens of Old Shoreham Road via various routes partly back up towards Orchard Close.

Regardless of the exact flood mechanism, the modelling approach adopted to produce the EA's Long-Term Flood Risk Map surface water flood extents is known to ignore micro topographic features in the area. Albeit the approach lowers roads by 125mm to account for the height of kerbs, the maps do not take in account panel fences and brick walls surrounding the curtilages of the properties. Based on previous hydraulic modelling studies by Joflows, these micro topographic features are shown to cause significant deviations in surface water flood patterns and trigger different flood routes and storage areas.

According to street view imagery presented in the New Revision of the FRA, the curtilage of the Application Site is shown to be limited by a mixture of wood panel fences (to Orchard Close), timber gravel boards and brick walls (to the rear gardens of Old Shoreham Road). These features are deemed to deviate and obstruct any flows between Orchard Close and the rear gardens of Old Shoreham Road.

The national-scale surface water flood extents for 0.1%AEP are therefore deemed not to be representative of the real flood patterns in the area. The presence of wood panel fences, timber gravel boards and brick walls are believed to steer flows towards the lower parts of Orchard Close, rather than prompting a flood route towards the rear gardens of Old Shoreham Road. Note that the presence of these features is not limited to the Application Site, with nearby curtilages also including wood panel fences and brick walls.

As the EA's Long-Term Flood Risk Map surface water modelling approach is known to ignore the presence micro topographic features such as brick walls, panel fences and gravel boards, the local flood patterns in the area are deemed to be significantly different from the web maps.

In particular, the gravel board and the base of the wood panel fences to Orchard Close and the brick wall near 19 Orchard Close are deemed to oppose to flow routes that may travel to the rear of Old Shoreham Road.

Therefore, no particular mitigation measures are required to manage off-site surface water runoff, other than:

- Maintaining the door to the alleyway that forms the northwest boundary of the Applications Site as shown in the proposed site plans;

- Apply flood resilience measures in detriment of flood resistance measures to prevent the displacement of surface water volume.

It is also worth noting that under the gov.uk 'Statutory Guidance for Excluded Floor Risk Activities', the applicant has the right to deploy temporary flood protection devices attached to buildings, without the need for a permit. Under this context, flood storage compensation becomes irrelevant if the rear yard is protected by temporary flood protection devices.

With the above mitigation measures in place, no displacement of off-site generated surface water flows is deemed to occur upon the erection of the new Ancillary Storage Room.

Please do not hesitate to contact me, should you wish any further information.



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