

Job Title The Farmers Stores, Gatehouse Lane, Goddards Green, Hassocks, BN6 9LE.		Date 01/12/2025
Item Gatehouse Hub 2 – Mid Sussex District Council Flood Risk and Drainage Team Response Note	Job No. E9427	Report No. RE003 A



Introduction

This response note has been produced by Stephen Wilson Partnership (SWP) in response to the comments from the Flood Risk and Drainage Team at Mid Sussex District Council (MSDC) in regard to the submission of information for clearance of condition 3 of the planning application DM/24/2482. The aim of this note is to summarise the concerns of the Lead Local Flood Authority (LLFA) and explain how the design of the surface water drainage design has been amended based on the comments from the LLFA.

This document should be read in conjunction with the drainage layout drawings 9427-SWP-ZZ-XX-DP-C-1100 & 1101 P03 and manhole schedule drawings 9427-SWP-ZZ-XX-SH-C-1105 P02.

Planning Condition 3

The condition relevant is copied as below:

The development hereby permitted shall not commence unless and until details of the proposed foul and surface water drainage and means of disposal have been submitted to and approved in writing by the local planning authority. No building shall be occupied until all the approved drainage works have been carried out in accordance with the approved details. The details shall include a timetable for its implementation and a management and maintenance plan for the lifetime of the development which shall include arrangements for adoption by any public authority or statutory undertaker and any other arrangements to secure the operation of the scheme throughout its lifetime. Maintenance and management during the lifetime of the development should be in accordance with the approved details. Reason: To ensure that the proposal is satisfactorily drained and to accord with the NPPF requirements, and Policy DP41 of the Mid Sussex District Plan (2014 - 2031).

MSDC Flood Risk and Drainage Team Comments (30 October 2025)

The following is the list of comments requiring a technical response, which have been numbered to assist in cross-referencing the relevant response.

- 1. The depth of water within the permeable paving for catchments B and C exceeds that of the gravel sub-base.*
- 2. Further information should be provided to demonstrate that the proposed SuDS features are adequately sized.*
- 3. It appears that the road gullies discharge downstream of the Area A's orifice plate, and this flow does not appear to be attenuated. Please provide further information.*
- 4. Given the size of the development, we require the level of detail within the drainage calculations to match that within Phase 1 (DM/24/0421).*
- 5. For consistency we would recommend checking that all permeable paving depths are correct throughout the submission.*

SWP Response

1. Agreed, the depth of water in Areas B & C only exceeds the depth of gravel subbase for the 1:100yr +45%CC but does not exceed overall paving depth. It should also be noted that the depth of water does not exceed the depth of sub material for either the 1:30+35%CC storm event or 1:100yr storm event.

The Development Site was previously greenfield and in accordance with MSDC guidance we have limited the design discharge to less than the existing 1 in 1 year greenfield rate of 3.8l/s. The Site will Discharge at 3.4l/s for all storms up to and including the 1:100yr event plus 45% climate change allowance.

Following thorough investigations into the SuDS hierarchy it was determined that discharging the surface water from the Development to the ditch/ watercourse adjacent to the Site was the most viable option.

Whilst we feel that the current drainage is adequate and meets Mid Sussex guidance effectively, in the interest of addressing this comment and avoiding recurring conversations and delays, the subbase depths will be increased as follows.

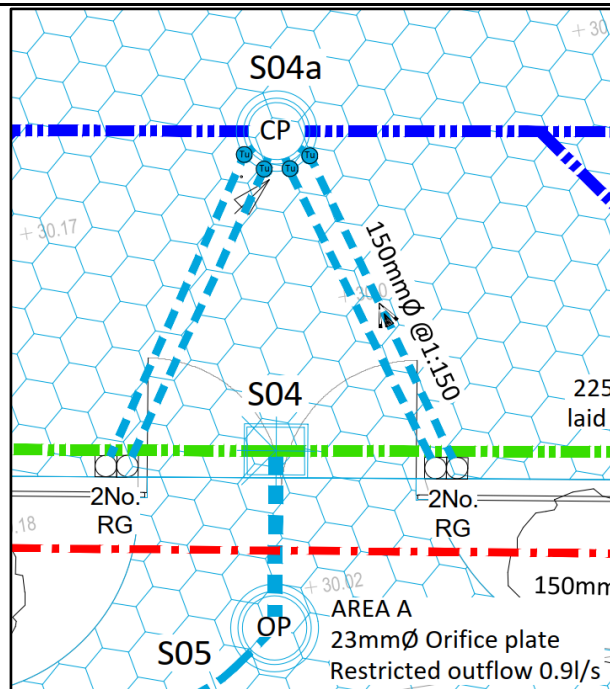
Area	Depth of Water (mm)	Depth of Subbase Material (mm)		Increase (mm)
		Current	Proposed	
A	666	750	750	Nil
B	831	750	870	120
C	951	800	960	160

The above table indicates that the maximum water level within the permeable paved areas does not exceed the type 3 gravel subbase material. We trust that addresses this comment satisfactorily.

2. The depth of permeable paving subbase has been increased to ensure that during the worst design case storm, 1:100 plus 45% Climate change, the depth of water does not exceed the depth of the gravel subbase material as highlighted in the table above.

This demonstrates that that the SuDS feature have been adequately sized to contain surface water runoff for all storms up to and including the 1:100yr +45% climate change.

3. The orifice plate has been moved to manhole reference S05 and road gully lateral have been rerouted to new manhole and perforated distribution pipe, see below. Refer to 9427-SWP-ZZ-XX-DP-C-1100 & 1101 P03 and manhole schedule drawings 9427-SWP-ZZ-XX-SH-C-1105 P02.



4. Agreed, under normal circumstances at detailed design a Site this size would be supported by a full set of calculations to encompass the entire surface water system, similar to the Phase 1 (DM/24/0421) calculations. However, in comparison the Phase 1 system was more complex and designed as a cascade with water working its way from each sub catchment area with flows restricted and attenuated before joining the central pipe network. The restricted flows from each of the sub catchments are combined and a further restriction applied, while the balance is attenuated in a large geocellular storage tank prior to outfall.

In contrast the Phase 2 drainage strategy is uncomplicated with each of the three sub catchments restricted at the extent of each catchment area and the separation retained until close to the outfall to the ditch. There is no additional restriction applied prior to outfall and all of the attenuation is contained within each catchment.

The use of permeable subbase to provide the storage for the entire Site has resulted in a limited pipe network, which is essential when building a detailed drainage system within the software. As the provision of adding pipes to the calculation would be of limited benefit the decision was made to maximise the storage design.

Whilst we have acknowledged that the drainage calculations provided are not as detailed as Phase 1 the method implemented does not account for pipe storage so instead provides adequate storage within the subbase of the permeable paving. However, in the interest of addressing this comment and avoiding recurring conversations and delays, a more detailed set of calculations has been provided and is based on FEH Data.

5. All of the documents and drawings will be checked thoroughly to ensure the permeable paving depths are consistently reported.

The following construction depths (taken from Point 1 above) will be presented throughout the submission documents.

Site Area	Area Name	Subbase Depth (mm)	Total Permeable Paving Depth (mm)
A	Wellness Car Park	750	920
B	Central Car Parking Area	870	1040
C	Lower Car parking Area	960	1130

Overall, the design of the surface water drainage system has been reviewed and amended based on the comments received from the MSDC Flood Risk and Drainage Team. We trust that these amendments are sufficient to facilitate to the discharge of the planning condition.

Prepared By	Seen By	Date
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