TO:	Horsham District Council – Planning Dept
LOCATION:	Coppice Hanger, Church Hill, Pulborough, West Sussex
DESCRIPTION:	Application for Approval of Details Reserved by Conditions 3 (Biodiversity CEMP), 5 (Ecological Enhancement Strategy) ,6 (Drainage Strategy), and 8 (Building Details) to approved application DC/21/1931
REFERENCE:	DISC/24/0087
RECOMMENDATION:	More information

SUMMARY OF COMMENTS & RECOMMENDATION:

The following supporting document has been reviewed:

- Drainage Pack (Meridian Civil Engineering Consultancy, 06 November 2023, revision P2, reference 'MC0259-COPPICE-DRAINAGE PACK')

Condition 6

Pre-Commencement Condition: *No development shall commence until a drainage strategy detailing the proposed means of foul and surface water disposal has been submitted to and approved in writing by the Local Planning Authority. The development shall be carried out in accordance with the approved details.*

Reason: As this matter is fundamental to ensure that the development is properly drained and to comply with Policy 38 of the Horsham District Planning Framework (2015).

This consultation response follows our previous responses dated 03 September 2024 and 20 May 2024. Thank you for the additional information. While this provides a step towards a suitable response, we require more information before Condition 6 can be discharged.

MAIN COMMENTS:

Thank you for providing additional information, consisting of an updated Drainage Pack containing an updated Drainage Layout drawing, hydraulic model calculations, groundwater monitoring report, and soakage trial pit data. Provision of the following information is required or advised:

- As per our previous comments, testing in accordance with BRE DG 365 at the location and depth of the proposed soakaways is required.
    - The provided soakaway trial pit calculations show that Pit ref.ST1 (Test 1 and Test 2), and Pit ref.ST3 (Test 2) failed to reach 25% total depth, with results then extrapolated to reach 25%. The extrapolation process however does not appear to be in line with the requirements of BRE 365. Evidence is required to show how this extrapolation was undertaken for the uncompleted tests and the extrapolation was undertaken in accordance with BRE365
    - The BRE DG 365 guidance (page 5) states as follows:

      "*If it is impossible to carry out a full-depth soakage test, the soil infiltration rate calculation should be based on the time for the fall of the water level from 75% to 25% of the actual maximum water depth achieved in the test. The effective area of loss from the soakage trial pit is then calculated as the internal surface area of the pit to 50% maximum depth achieved, plus the*

base area of the soakage trial pit. In general, soakage tests should be undertaken where the drain will discharge to the soakaway."

- Pit ref.ST1 Test 3 shows the water level from the bottom of the Pit rose during the test from 0.69m to 0.70m, prior to then falling to 0.42m. Explanation for the rise in water level is required.
- The Soakage Test Pit Data summary tables show the first round of tests gave the lowest rates for the infiltration design features. The use of the worst-case rates to inform the design is in accordance with best practice. The Soakage Test Pit Data summary tables show that for each pit location Test 1 and Test 2 were undertaken on 2nd June, whilst Test 3 was undertaken on 3rd June. However, the following infiltration rate calculations show that the three tests for Pit ref.ST1, ST2 and Shallow were undertaken on 2nd June whilst for Pit ref. ST3, the three tests were undertaken on 3rd June. This is different to the summary tables. Therefore, clarification on this is needed.
- If infiltration in the soakaway locations is not proven to be feasible in accordance with BRE DG 365, then alternative methods of disposal are required in accordance with the drainage hierarchy (Building Regulations Part H).

- The Drainage Layout drawing states the proposed CL and IL for each soakaway and the cover depth is to be a minimum of 0.4m for each soakaway. The Drainage Layout shows Soakaway A, B and D have a depth from CL to IL of 2m, whilst Soakaway C has a depth from CL to IL of 1.6m. Both the Drainage Layout and the Causeway model for Soakaway A, B, C and D show the Soakaways to have a thickness of 1.2m. The Causeway model does not include the CLs for each soakaway so this cannot be cross referenced. It is therefore assumed Soakaway A, B and D have a cover depth of 0.8m whilst Soakaway C has a cover depth of 0.4m. In the Causeway model the IL of Soakaway C is listed as 8.8m, however in the Drainage Layout this is 9.2m. This discrepancy must be addressed, and the correct IL provided.

- The updated Groundwater Monitoring Report (October 2024) enclosed in the updated Drainage Pack contains discrepancies as follows:
  - The report states the wells have been dug to 3.0m. This is incorrect, as 'Borehole' 2 is listed as 2.95m depth.
  - The 'Borehole Locations' image shows that 'Borehole' 3 is located offsite. There has been no testing undertaken in the west of the site or at the same ground level as the proposed depths of Soakaway A and C. This must be provided to confirm a 1m unsaturated zone can be provided.
  - The report states that the soakaways will be constructed at 1.6m below ground, and that a 1.0m clearance is required, hence the test should confirm groundwater levels below 2.6m. However, as stated above, the CL and IL for Soakaway A, B and D on the Drainage Layout shows that these soakaways have a total depth of 2.0m. Therefore, the unsaturated / clearance zone must extend, at a minimum to 3.0m depth below ground level in these soakaway locations. Revised groundwater monitoring results must be provided to show the correct assessment of groundwater levels.
  - The maximum depth of groundwater should be clearly stated for each 'Borehole' as the results are unclear.
  - As per our previous comments, groundwater levels at a proposed soakaway locations are required to be proven and monitored as per Section 5.2.3 of the LLFA Policy, whereby any infiltration drainage design must include

adequate winter groundwater monitoring data in areas of known groundwater issues, to determine the highest winter groundwater table.

- The Drainage Layout shows sewer pipes and manholes are proposed in proximity to trees, for soakaway D the topographical survey refers to a Fruit Tree, Oak tree and others in this immediate location. There are also trees proposed directly over sewer pipes. The impact of tree roots on sewers and manholes should be taken into consideration within the design and mitigation measures incorporated. In addition, any TPOs or root protection zones should be accounted for within the proposed drainage design to prevent any potential damage that could occur to retained trees and their associated roots during construction. We would need to see evidence that this has been considered and construction on this has been undertaken.

- We previously requested the applicant provide confirmation of permission to connect to the public foul sewer. Evidence of confirmation of permission to connect must be provided.

- The applicant may additionally require:
    - Ordinary Watercourse Consent (OWC) from the LLFA, to consent to any works adjacent to or within an ordinary watercourse. The WSCC LLFA has a Pre-Application OWC service that should be used during detailed design when suitably detailed information is available.
    - An Environmental Permit from the EA, to consent to any; works adjacent to or within a Main River, discharges to ground within a Source Protection Zone 1, and discharges to ground and surface water from treatment of sewerage.

  Please note that a discharge of condition does not guarantee the granting of an OWC, or an Environmental Permit.

ANY RECOMMENDED CONDITIONS: N/A	
NAME:	Y Riley S Knowles P Mennell
DEPARTMENT:	Horsham District Council - Drainage
DATE:	29/11/2024