TO:	Horsham District Council – Planning Dept
LOCATION:	Sluetts Farm Buildings Two Mile Ash Horsham West Sussex
DESCRIPTION:	Application for Approval of Details Reserved by Condition 3 to approved application DC/23/0306
REFERENCE:	DISC/24/0111
RECOMMENDATION:	Condition 3: Not satisfied as more information required.

SUMMARY OF COMMENTS & RECOMMENDATION:

The following supporting documents have been reviewed:

- Discharge of Conditions Letter from Herrington Consulting (13 May 2024, NA/3983/2024_001_r0)
- Covering Letter from Savills (15 May 2024, no reference)

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 scheme.*

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).

We have reviewed the evidence provided by the applicant in support of the planning application and the following recommendations to the LPA are made.

Insufficient information has been provided by the applicant to consider discharge of Condition 3. The applicant should provide the following information prior to the review to discharge Condition 3.

- An assessment of how surface water would flow across the site in normal and rainfall conditions should be provided.
- Measurement of the total site area, with supporting catchment plans and calculations is required to support Table 2 of the Discharge of Conditions Letter which states that 38m^2 is to drain to the geo-cellular storage tank, it is noted that this includes a 10% allowance for urban creep.
- The volume of storage required to attenuate the 1 in 100 (1% annual exceedance probability (AEP) +45% climate change design event has not been provided. Please provide calculations to confirm the minimum attenuation storage volume required.
- The greenfield runoff rate is calculated for the site, enclosed in The Discharge of Conditions Letter. The Discharge of Conditions Letter considers that a limiting discharge rate of 2.0l/s is likely to be acceptable by the LPA. Flow control devices have improved to prevent blockages at low rates and lower discharge rates are achievable with guarded control devices.
- Page 5 and Table 2 in the Discharge of Conditions Letter states that runoff is to be restricted to 0.9l/s using a 26mm orifice plate at invert level and an overflow at top of tank is to be provided. The surface water drainage strategy does not restrict runoff to the greenfield runoff rate, and betterment to the existing runoff rates has therefore not been achieved. However, as the impermeable area of the development

is small, it is considered that the existing Q_{BAR} greenfield runoff rate of 0.022 l/s is not achievable, and for this development limiting the runoff rate to 0.9 l/s is considered to be acceptable. Due to the proposed small orifice plate of 26mm, pre-treatment, guarding of controls and a well-defined management and maintenance strategy needs to be put in place to limit silt and debris entering the drainage system and causing blockages and reducing effective storage.

- The simulation parameters used in the Surface Water Management calculations within the Discharge of Conditions Letter should be reviewed. The Time of Entry and Time of Concentration for such a small catchment i.e. the footprint of the building is likely to be much lower than 4mins and 30mins respectively. The simulation shows the incorrect design flow of 1.5 l/s, this should be amended to 0.9 l/s. The design depth would be the depth of the tank i.e. 0.4m or the depth to the overflow pipe, if lower than 0.4m from invert level.
- The Surface Water Management Calculations enclosed within the Discharge of Conditions Letter shows that during the design event, the water level in the tank reaches 351mm. The tank is 400mm in depth, assuming the overflow pipe would be 100mm in diameter, the overflow would discharge during the design event before the full capacity of the storage tank is used, and discharge to the watercourse would be unrestricted. Therefore, the overflow pipe should be set above the top water level of the design event to prevent unrestricted flow. An overflow may be better located in the flow control chamber rather than the storage tank to allow the full storage capacity of the tank be utilised. It would also be difficult to maintain the overflow pipe or clearing any blockages if placed within the cellular storage tank. The invert level of the overflow must be at an appropriate level to operate as an exceedance control rather than during lesser flows.
- Evidence of measures to prevent pollution of the receiving watercourse should be provided.
- The drawing Indicative Surface Water Drainage Layout (07 May 2024, 3983_DWG_r0) enclosed within the Discharge of Conditions Letter provides an indicative surface water drainage layout. A detailed drainage layout plan is required which should reference all assets showing characteristics such as; pipe sizes and materials, gradients, and manhole type, depth, size, SuDS dimensions, materials and depths. Please provide a revised drawing with a higher resolution.
- The drawing Indicative Surface Water Drainage Layout shows proposed pipes are in close proximity to existing trees. The impact to existing tree root zones, and of the tree roots on pipe and manhole operation, maintenance and long term structural integrity should be taken into consideration in the drainage layout. The manholes must be located so they are easily accessible.
- Ground levels should be reviewed at the detailed design stage to confirm that a gravity outfall to the watercourse can be achieved.
- The Discharge of Conditions Letter states that surface water will be discharged into the ordinary watercourse located in proximity to the site. Provide evidence of third-party agreement to discharge surface water into the watercourse.
- A generic non site specific SuDS Maintenance Schedule is enclosed within the Discharge of Conditions Letter which includes the required maintenance actions and frequency. A site-specific Maintenance and Management Plan including access requirements, maintenance responsibility, and proprietary device manuals, for all drainage features and SuDS devices should be provided.
- Drawings showing conveyance routes for flows exceeding the 1% AEP plus climate change event should be provided.
- The drawing Indicative Foul Water Drainage Layout (07 May 2024, 3983_DWG_r0) enclosed within the Discharge of Conditions Letter provides an indicative foul water drainage layout. The Discharge of Conditions Letter states that the design peak flow rate is calculated to be 0.05l/s in accordance with Design and Construction Guidance,

based on 4000l/dwelling/day. In line with best practice, where foul drainage is discharged via a pumping main, the pumping main should discharge to a new manhole to allow the final connection to be discharged via a gravity outfall into the existing network. The requirement for air release valves must be considered when topographic information is available at the detailed design stage.

- The Indicative Foul Water Drainage Layout drawing shows proposed pipes are in close proximity to existing trees. The impact to existing tree root zones, and of the tree roots on pipe and manhole operation, maintenance and long term structural integrity should be taken into consideration in the drainage layout. The manholes must be located so they are easily accessible.
- We request a detailed drainage layout in line with Sewerage Sector Guidance and/or Building Regulations Part H to be provided, showing pipe sizes, materials, gradients, and outfall location.
- Southern Water require a formal application for a connection to the public foul sewer. Confirmation of permission to connect to the public sewer should be provided and consultation with Southern Water is required.

MAIN COMMENTS: As above	
ANY RECOMMENDED CONDITIONS: N/A	
NAME:	Y Riley A Soderberg P Mennell
DEPARTMENT:	Horsham District Council - Drainage
DATE:	13/06/2024