TO:	Horsham District Council – Planning Dept
LOCATION:	38A Quarry Way, Southwater, West Sussex, RH13 9SU
DESCRIPTION:	Demolition of outbuildings and construction of a new detached double storey dwelling (Class C3)
REFERENCE:	DC/24/0289
RECOMMENDATION:	Advice / More Information

SUMMARY OF COMMENTS & RECOMMENDATION:

The following supporting documents have been reviewed:

- Application for Planning Permission (Horsham District Council, 21st of February 2024, reference DC/24/0289)
- 38 Quarry Way, Design & Access Statement (Sarah Sullivan, February 2024)
- Horsham District Council – Arboriculture Consultation Response (6th of March 2024)
- Southern Water – Foul and Surface Water Drainage Consultation Response (22nd of March 2024, reference DC/24/0289)

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

The applicant is yet to provide the following information, and until such time as this information is received, Horsham District Council cannot determine the suitability of the proposals with regards to surface water and foul drainage.

- The applicant has indicated that surface water generated onsite currently discharges to a soakaway. The Application Form and Design & Access Form contradict one another, stating the proposed method of discharge is sewer and infiltration respectively. Given the site currently discharges via infiltration, and that that it is likely to be viable, based on available information, potential for the new proposals to discharge via infiltration should be explored. This is line with the drainage hierarchy (building Regulations Part H).
- The applicant should provide site drainage patterns – an assessment of the current and proposed drainage patterns entering, within, and leaving the site, including an understanding of how surface water would flow across the site in normal and rainfall event conditions (see to GOV.UK Long term flood risk mapping).
- The applicant should provide a measurement of pre and post development permeable and impermeable areas with supporting catchment plans and calculations.
- The applicant should provide the following flow and volume rates with supporting evidence, for both greenfield and brownfield rates (see the UKSUDS.com tool): existing runoff rates during a 100% Annual Exceedance Probability (AEP), 3.33% AEP and 1% AEP storm event. The applicant should also provide post development discharge rates during a 100% AEP, 3.33% AEP, 1% AEP, 1% AEP + Climate Change storm events and Greenfield runoff rate (Q_{BAR}). Water storage

capacity volumes of the proposed drainage features to attenuate the 1% AEP + Climate Change storm event should be provided.

As Per Sections 5.2.2 to 5.2.3 of the West Sussex LLFA Policy for the Management of Surface Water*:*

- *Infiltration structures (to ground) include soakaways, basins, swales and permeable paving. Infiltration rates for soakage structures are to be based on percolation tests undertaken in the winter period at the location and depth of the proposed structures. The percolation tests must be carried out in accordance with BRE DG 365, CIRIA R156 or a similar approved method, and cater for the 1 in 10 year design storm event between the invert of the lowest entry pipe into the infiltration structure and the base. Tests should be undertaken during winter / early spring when ground water levels are typically highest; if groundwater levels are influenced by the tide then tests should be undertaken over a highwater spring tide. For the purpose of design, the percolation rate must be applied to the sides of the infiltration structure only and the rate for the base must be zero, unless otherwise agreed with the LPA engineer. This does not apply to infiltration basins or permeable pavements, whereby the percolation rate is applied to the base only. The infiltration structure should drain 50% of its total volume in 24 hours or less for the 1 in 10 year event and for the 1 in 100 year event (unless otherwise agreed with the LPA engineer) in order to provide spare capacity for subsequent storms. Flood risk assessments: climate change allowances can be viewed via the following link:*
  https://www.gov.uk/guidance/floodriskassessmentsclimatechangeallowances
- *Any infiltration drainage design must include adequate winter groundwater monitoring data in areas of known groundwater issues, to determine the highest winter groundwater table. Residential developments in excess of five properties will require ground water monitoring to be carried out between October and March inclusive. The extent of monitoring required for smaller developments will be subject to agreement with the District or Borough Council Engineers. Adequate freeboard must be provided between the base of the soakaway structure and the highest recorded groundwater level identified in that location; ideally this should be 1m where possible.*
- The LLFA Policy notes the minimum design event for traditional soakaways is the 10 year event + climate change. As per best practice infiltration devices should be 5m from structures and boundaries, in addition to avoiding Root Protection Zones.

- The applicant should provide a Fully designed surface water management strategy including: the aim to achieve and better greenfield runoff rates and adherence to the drainage hierarchy, rationale for SuDS selected in line with the West Sussex LLFA Policy for the Management of Surface Water (2018), Horsham District Planning Framework (2015) – Policy 38 and Industry best practice, such as The SuDS Manual (C753).
- The applicant should provide evidence of measures to prevent pollution of the receiving groundwater and or/surface water.
- The applicant should provide a detailed surface water drainage strategy, including supporting calculations, detailing outfall location, runoff rate/s as per the LLFA's SuDS Policy 3, with allowance for urban creep, required and proposed volumes of attenuation storage, freeboard and sizing of all drainage features. A detailed drainage layout plan should reference all assets showing characteristics such as; pipe sizes and materials, gradients, and manhole type, depth, size, SuDS dimensions, materials and depths.

- As per the comments received from Southern Water in their consultation response, the applicant should provide evidence of a third-party agreement to discharge surface water into their drainage system, if discharge to ground is not viable.
- The applicant should provide a Maintenance and Management Plan including access requirements, maintenance frequency and responsibility, and proprietary device manuals, for all drainage features and SuDS devices.
- The applicant should provide drawings showing conveyance routes for flows exceeding the 1 in 100 year plus climate change event and consideration of how exceedance flows for events greater than the 1 in 100 year + 40% Climate Change event will be managed and mitigated on site without significantly increasing flood risk (both on site and outside the development).
- Comments received from Southern Water in their consultation response, indicate the applicant is yet to approach Southern Water for foul water connection agreement. The applicant should provide confirmation of permission to connect to a private/public sewer. The applicant should also provide a foul water drainage strategy, with supporting flow calculations in line with Sewerage Sector Guidance and/or Building Regulations Part H, including a detailed drainage layout, showing pipe sizes, materials, gradients and outfall location.

The Horsham District Council Arboriculture consultation response, notes the applicant must consider the location of any proposed soakaways, given the presence of Root Protection Zones in the site.

MAIN COMMENTS:
As above.

ANY RECOMMENDED CONDITIONS:
N/A

NAME:	A. Harman P. Mennell S. Darch
DEPARTMENT:	Horsham District Council - Drainage
DATE:	30/04/2024