From: GVS Raven Estate Ltd [redacted]
Sent: 31 October 2024 13:36
To: Kate.Turner; Planning
Subject: DISC/24/0094 Topham Farm
Attachments: C2719 Drainage Report_P3.pdf; C2719_301_PL2_Construction Details.pdf

Categories: Index to I@W

Dear Kate,

Note the response from the council's drainage consultation. Prompted by the comment on the webpage please find attached a further two further amended documents and specific comments below:

Response to all comments Below and attached docs:

"Supporting flow calculations in line with Sewerage Sector Guidance and/or Building Regulations Part H must be provided. The applicant has stated the maximum discharge rate of the foul water will be 0.0035 l/s. The applicant has not provided supporting calculations or stated the methodology used. This must be provided as supporting evidence." The proposed dwelling has a single bedroom. The water neutrality report states that there is to be a discharge of **72.661 l/day** from the proposed dwelling. Convert this to litres/second gives a discharge rate of **$8.4x10^{-4}$ l/s.** Which is less than the calculated above.

If we were to use building regulations, the same process would apply by occupancy of 3 (Number of bedrooms + 2) with an assumed discharge of 110 l/p/day. 330 / 24 = 13.75. (13.75 / 60) / 60 = **0.0038 l/s.**

"In line with the above and as previously requested, should the rates be updated in line with the Sewerage Sector Guidance and/or Building Regulations Part H, the drainage model should account for peak foul flows contributing from node F4 to outfall to ensure sufficient capacity within the proposed sewer network." A 150mm pipe laid at a gradient of 1:150 has a maximum capacity of 15 l/s. The proposed pipe is laid at 1:80 and only has a maximum flow rate of 1.0038 l/s. This does not need to be modelled as it is clear there is sufficient capacity within this pipe.

"The Drainage Layout drawings show node S3 as the control chamber, connected to the adjacent attenuation tank via a 150mm pipe. There is no clear inflow and outflow shown. The connections between node S3 and the attenuation tank, two upstream rainwater harvesting tanks, and the filter drain is also unclear on the Drainage Layout drawings and no further information is provided in the Construction Details drawing. The applicant must provide details how the attenuation storage connects with the wider network." The attenuation tank is connected to the flow control chamber by a single 150m pipe as it is an offline tank. As S3 surcharges, the attenuation tank will fill up with all the storm water. As the inflow stops, the water will discharge out as designed. All rainwater will be captured by the network surrounding the proposed barn and dwelling before discharging into the respective rainwater harvesting tanks. Once these tanks fill up, the water will discharge out the overflow into S3. S3 will restrict the flows via an orifice plate and slowly release the water at 1 l/s into F4 through the filter drain.

"The updated Drainage Report Table 3 incorrectly assesses runoff destination. The current proposals indicate discharge of 'Residential Roof' runoff to surface water (groundwater is stated in Table 3) and 'Other roofs' runoff destination to the groundwater via the permeable paving (in addition to the surface water as correctly assessed). Furthermore, Table 4 does not include the Residential Roof runoff source, and the error is carried forwards for the 'Other roofs'. This should be updated in the

Drainage Report to demonstrate that suitable pollution mitigation is proposed." This has been updated to suit. Residential and other roofs discharging to surface being treated by filter drain. Residential drive discharging to ground being treated by permeable paving.

"In accordance with the West Sussex Surface Water Management Policy, Ordinary Watercourse Consent must be sought from the LLFA prior to any works that affect the flow of water in the watercourse." This has been acknowledged and the LDC application will be submitted once condition is cleared.

"The applicant may also require an Environmental Permit from the EA for discharge of treated effluent to the watercourse." An EA permit is not required for the discharge to the ditch as noted within section 5.5.3 of the report.

Yours
Rob

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[redacted]