Surface Water Drainage Comment Tracker

Application Reference: WA/108/24/PL **Site Name: Stoneybrook Farm Eastergate Lane Walberton BN18 0BA**	**Initial Issue Date: 27/03/2025** **Issue Date: 27/06/2025** **Reviewer Reference: ADC/SB & PC**

Summary and Recommendation:

Objection

Objection comments in **bold**, remaining comments to be addressed via condition.

Please note: Any DOC application should only have a maximum of two consultation responses. If this is the second response for an open application and there are still comments outstanding, then please object to the application.

	ADC Drainage Comments	Designer Response	ADC Drainage Comments	Designer Response	
Date:	**27/03/2025**	**31/03/25**	**27/06/2025**	**22/07/25**	
Condition Number: WA/108/24/PL					
Comment Number					
1.	**Please clarify the true bed level, top of bank level and existing connection level to the watercourse.**	The bank level is 10.49m The inlet invert level set 1.102m below bank level = 9.388m Watercourse level set 9.350m	This does not achieve the best practice minimum 150mm freeboard required between ditch bed and pipe invert (38mm being achieved). This requirement is stated in our previous consultation response. The layout plan should be updated to clearly show the ditch bed levels/top of bank levels along the entire southern boundary. The existing levels along the length of the watercourse will potentially provide an insight into the true longitudinal profile and may present opportunities to lower the bed levels without compromising gradients and thereby help achieve greater freeboard. Also, it is noted that the existing 100mm diameter pipe outfall which you intend to utilise, passes through the RPZ (root protection zone) of an existing oak tree. This is a potential future/existing issue in terms of root damage to the pipework, thus increase to flood risk. In fact the pipe may already have issues in this respect. It is therefore strongly suggested that a new pipe is installed avoiding any RPZ's. This will help avoid it being questioned during the discharge of any planning conditions.	Following a site visit July '25 and survey of the existing embankment to the watercourse it is confirmed a freeboard of 209mm is provided. The southern boundary to the watercourse is added to the plan. The survey identified the bed gradient to be flat. A CCTV serve of the outfall pipe will be carried out prior the connection of the new system, and should the survey identify tree roots, these will be cleared and the pipelined should it be required.	
2.	**Please clarify the proposed connection level and demonstrate that a gravity connection can be achieved. This will include pipe gradients and invert levels at nodes.**	Existing connection to be retained, proposed to connect into existing chamber by gravity. Hydraulic network calcs attached	See item 1 above. The calculations have not been reviewed as they currently do not take account of criteria as set out in previous comments (ie. items 13,14,15). It is likely that storage will need to be increased once this is taken account of, however, as there is scope within the site to do this, it can be dealt with during the discharge of any planning	Existing levels are shown on the plan, with the Hydraulic network calc attached which also covers the points of 13,14 and 15.	

			conditions. The applicant should also be aware that the landscaping scheme currently conflicts with the drainage scheme in part (ie. proximity of trees to pipework/pond), and will therefore need to be adjusted before either scheme is approved.		
3.	**Clarify any land raising that is proposed on the site and demonstrate that this will not increase flood risk.**	The Exceedance Plan is attached, Surface Water routes to the existing low spots on the southern boundary.	Please clearly indicate all areas of the site where the ground it to be raised and the level to which it is being raised. This information should be included on the exceedance plan, ensuring that the flow arrows are adjusted if necessary.	The Cut & Fill model shows the areas to be dug and filled across the site. The exceedance flows are shown in considering the level changes across the site.	
4.	**Clearly show the location and easement for the watercourse on plans.**	The watercourse easement is shown.	The easement shown exceeds the required minimum 3m distance from the top of the bank of the watercourse and is therefore deemed acceptable. For clarity, clearly show the watercourse on the layout plan, together with the measured distance from the top of bank to any structure.	The easement is shown for the 15m protection zone for the watercourse. The watercourse location is shown on the plan.	
5.	Site specific groundwater monitoring will be required. If infiltration is ruled out due to high groundwater levels and monitoring is abandoned, then groundwater must be assumed to be at ground level.		To be addressed via condition.	The modelling has been based on groundwater level being set at 10.45m as a worst-case situation.	
6.	If groundwater levels allow then winter infiltration testing at the location, depth and head of water appropriate for the design must be completed. The testing depth must be at least 1m above the peak recorded groundwater level.		To be addressed via condition.		
7.	Ordinary watercourse land drainage consent or ADC Land Drainage Byelaw consent may be required. Evidence of this will need to be submitted.		To be addressed via condition.		
8.	Illustrate natural and exceedance flow paths on plans.		To be addressed via condition.		
9.	Submit an assessment of interception drainage and that surface water from the majority of frequent rainfall events will not leave the site.		To be addressed via condition.		
10.	Water quality assessment will need adjustment to reflect that the permeable paving does not serve all of the impermeable area and that the swale and detention basin are in fact one feature rather than acting in series.		To be addressed via condition.		
11.	Buoyancy calculations and a construction method statement relating to high groundwater may be required.		To be addressed via condition.		

12.	Contributing area plan must include the basin and the access road if this ultimately drains to this system.		To be addressed via condition.	Existing access road infiltrates into the ground.	
13.	Rainfall data must be adjusted to FEH22.		To be addressed via condition.	Drainage Calculations have been provided with the FEH22 rainfall data	
14.	Please use the upper end climate change allowances correct at the time of determinations (currently 45% on the !% AEP event and 40% on the 3.33% AEP event).		To be addressed via condition.	The Climate Change allowance has been assessed for the upper end limits	
15.	A surcharged outfall will need to be modelled, this should be to the top of the bank where detailed watercourse modelling is not available.		To be addressed via condition.	The model has considered the surcharged water level of 10.45m.	
16.	Detailed plans and construction detail drawings will be required in accordance with the checklist.		To be addressed via condition.		
17.	If infiltration is not viable then the runoff rate is still subject to approval.		To be addressed via condition.		