

Application Reference: Y/9/25/DOC Site Name: Fleurie Nursery Lake Lane Barnham PO22 0AL	Initial Issue Date: 21/02/2025 Issue Date: 19/11/2025 Reviewer Reference: ADC/EXT5/AF
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Summary and Recommendation:

Condition 4: **Further Information Required**
Condition 5: **Further Information Required**
Condition 6: **Further Information Required**

	ADC Drainage Comments	ADC Drainage Comments	ADC Drainage Comments	Designers Response	
Date:	21/02/2025	30/06/2025	17/11/2025	09/12/2025	
Condition Number: 4 - surface water drainage scheme					
Comment Number					
1.	Please submit greenfield run off rate calculations. Designers response 26/03/2025 Please find Greenfield Runoff Calculations Attached. As it was confirmed that due to the high groundwater level and low infiltration results, infiltration was ruled out and SOIL type for Greenfield calculations has been updated to Soil Type 5.	It would appear that the calculation has been based upon the entire site area as opposed to just the impermeable/drained area. Nevertheless, the QBAR flow rate is minimal. Comment closed.	COMMENT CLOSED		
2.	Runoff rate must be restricted to QBAR or 2l/s/ha (whichever is higher) unless otherwise agreed. (Linked with comment 1). Please	See also response to comment 1. Restricted discharge of 1 l/s is acceptable in this instance. It is noted that the orifice	COMMENT CLOSED		

	adjust or submit evidence of agreement to a different rate. Designers response 26/03/2025 The Greenfield runoff calculations with Soil Type 5 indicate a Qbar of 0.162 l/s. However, to avoid any blockages and potential risk of flooding due to the small diameter of the orifice, surface water runoff is to be discharged at 1l/s with 20mm orifice diameter.	will be protected from blockage with a mesh filter. Comment closed.			
3.	Please model a surcharged outfall (to the top of the bank if watercourse specific modelling is not available). Otherwise please justify why this is not necessary. Designers response 26/03/2025 Please find the updated calculations attached. Kindly note that the surcharged depth has been set considering the top of the banking along the western side of the ditch, which is slightly lower than at our site.	Noted and accepted. Comment closed.	COMMENT CLOSED		

4.	Please correct discrepancies between cover and invert levels on the plans and the calculations. [It is acknowledged that this is unlikely to affect the design.] Designers response 26/03/2025 Discrepancies are now updated, please find the revised drainage plan and drainage calculations attached.	Cover levels for S3 and S4 differ. Please adjust. Designers response 01/09/2025 Updated	Drawing revision C2904 P101 rev P5 acceptable. Comment closed.	COMMENT CLOSED	
5.	Please correct the impermeable area contributions in the modelling. Currently less than described on the plan due to rounding down. The southern areas are also shown entering the system at S4 which is an inaccurate representation. If grouped together then they should be showing as entering at S5. Designers response 26/03/2025 Please find the updated drainage calculations attached with impermeable areas being added to drainage nodes.	Noted and accepted. Comment closed.	COMMENT CLOSED		

6.	Please show any relevant easements on the plans. Designers response 26/03/2025 The existing watercourse 3m easement is now indicated on drainage plan	Noted and accepted. Comment closed.	COMMENT CLOSED		
7.	Please demonstrate how any areas of surface water flood risk are accounted for within the design. Designers response 26/03/2025 The proposed access road that is going to be raised in levels is to be graded following the existing site topography with levels being graded towards the existing watercourse. This is to mimic the existing flood water route.	Noted and accepted. Comment closed.	COMMENT CLOSED		
8.	[Water quality and treatment have not been assessed, this is accepted based on the design only draining roof water – The SuDS Manual stipulates that removal of debris and sediment is required which is provided by catch pits in S5, S3 and S2.]	COMMENT CLOSED			
9.	The landscape and ecology management plan refers to a post and rail fence	Noted and accepted. Comment closed.	COMMENT CLOSED		

	installed post-development to protect the rife. Please clearly demark this fence on the plans and ensure that is not within the easement for the watercourse. Designers response 26/03/2025 The proposed post and rail fence is now indicated on the proposed drainage plan. Proposed fence is to be located min. 3m away from the top of the banking (easement).				
10.	The existing access appears to be artificially raised (previous level 8.55, proposed level 9.10). This is also an area of surface water flood risk – see comment 7 – please justify the change in level and demonstrate any impact on flood risk. Designers response 26/03/2025 As per the response to comment 7, access road is to raised to meet the proposed site levels. Access road will be graded following the existing site levels with a slope toward the existing watercourse to mimic the	Noted and accepted. Comment closed.	COMMENT CLOSED		

	existing runoff discharge regime.				
11.	The orifice for S5 is described on the layout as being 500mm diameter. This is assumed to be a typo (confused with the chamber diameter), please correct. Designers response 26/03/2025 Orifice chamber diameter has been updated to 600mm diameter and orifice diameter to 20mm.	Orifice chamber is shown as 900mm diameter. 20mm orifice noted. Comment closed.	COMMENT CLOSED		
12.	The modelling does not include the flap valve. Designers response 26/03/2025 Flap Valve is now included	Noted and accepted. Comment closed.	COMMENT CLOSED		
13.	Please remove the standard (non-site specific) headwall details from C2904-P-501. These contradict the OWC drawings which are more detailed and site specific. Designers response 26/03/2025 Headwall detail has been removed. It should be noted that OWC drawings have been issued	Noted. Comment closed.	COMMENT CLOSED		

	and comments have been received. Drawings are now updated and the updated drawings has been issued for final review.				
14.	Please detail the overflow level of the Sel Controflow 500 Orifice Chamber. Designers response 26/03/2025 Overflow level is now indicated on orifice chamber detail.	It is noted that the overflow level of 9.150 is higher than manhole S3 cover level (9.00) upstream, so in the event of a blockage at the orifice, excess water may overflow from S3 before the formal overflow at S5 operates. Please advise. Designers response 01/09/2025 Updated. The overflow level has been lowered and is now set at 9.025.	Drawing revision C2904 P101 rev P5 has been adjusted to show an overflow level of 9.025. The construction details drawing should be updated to suit. The construction detail for the attention arrangement should demonstrate how the vent pipe outlet will be above the overflow level, or the overflow level reduced below the cover level for the storage.	Updated.	
15.	The orifice for the design is very small, how is risk of blockage mitigated for in the design? Designers response 26/03/2025 All downpipes are to be installed with Leaf separators. Orifice chamber	Noted. Comment closed.	COMMENT CLOSED		

	is to be installed with orifice filter plate.				
16.	There is a risk of a clash between the surface water and foul drainage north of S4 and west of F6. Please adjust the design, if possible, to minimise this risk. Designers response 26/03/2025 Clash has been reviewed and a separate note indicating proposed SW and FW pipes invert levels is now indicated.	Noted. Pipes are close when allowing for pipe thicknesses but achievable. Comment closed.	COMMENT CLOSED		
17.	Please submit a statement detailing how groundwater will be managed during construction. a) To ensure groundwater cannot enter the system. b) To demonstrate that flood risk will not be increased by dewatering excavations. Designers response 26/03/2025 See additional statement attached.	The document will need to specify where any dewatering pumps will discharge, the discharge rate, silt control measures to mitigate pollution and erosion control measures if required. Flow rates to be minimised by appropriate measures. All measures to be specified Designers response 01/09/2025 Noted and updated	The revised method statement (Method Statement for SuDS System (Attenuation) Rev – P2) is acceptable. Comment closed.	COMMENT CLOSED	

18.	Please submit evidence of the structural/buoyancy calculations to justify the design. Designers response 26/03/2025 Please find buoyancy calculations attached. It should be noted that concrete slab weight has been excluded from floatation calculations.	Noted. Floatation risk rests with the designer. Comment closed.	COMMENT CLOSED		
19.	Please propose water reuse or justify why not. Designers response 26/03/2025 1000litres harvesting tank is now proposed to be installed for each caravan building.	Notes, however, please detail how the inlet to butt/outlet from butt to surface water drainage system, will be arranged ie. RWP flow diverter kit. Designers response 01/09/2025 Updated. RWPs will connect to the waterbutt via a flow diverter kit, which directs the first flush to SW system and diverts subsequent rainfall into the butt. Any overflow from the butt will discharge safely back to the proposed SW system.	Details / product information should be provided for the rainwater harvesting tanks including connection to the drainage system.	The paragraph has been expanded in the report and drawings. Detailed information regarding the rainwater harvesting tanks, including their connection to the drainage system, has been provided. Installation details and the installation manual have also been attached to the report.	
20.	Evidence how interception drainage is provided – links with point 19.	Noted. Comment closed.	COMMENT CLOSED		

	Designer response 26/03/2025 Surface water runoff is to be re-used either for harvesting or toilet flushing subject to buildings internal plumbing design. Each caravan building is to be constructed with 1000 litres above ground tank.				
Condition Number: 5 - discharge flows to watercourses					
Comment Number					
1.	Please submit evidence of ordinary watercourse consent and supporting approved plans and drawings. Designer Response 26/03/2025 First set of comments has been received and the updated drawings have been issued for a final review and approval.	Please provide copy of consent and approved drawings when available. Please note that if the 'Lead Local Flood Authority' deem that 'Ordinary Watercourse Consent' is no longer required (due to a change of stance in requirements) then consent will be required under Arun District Councils Land Drainage Byelaws 2004 – evidence of approval will be required. Designers response 01/09/2025 Noted. I confirm that this was submitted 02.04.2025 under reference WSCC-702039306. Copies of all	Evidence of OWC / LDB consent is awaited.	The OWC application has been approved. We attach the approved OWC consent as evidence.	

		relevant approvals and confirmations will be provided once available			
Condition Number: 6 - maintenance and management of the surface water drainage system					
Comment Number					
1.	It is not appropriate to approve the maintenance manual until it has been appended with the approved plans to discharge condition 4. Designer Response 26/03/2025 Maintenance and Management statement has been updated taking into account checklist comments.	All (revised/approved) drawings will need to be appended to the maintenance manual. Designers response 01/09/2025 Noted and updated	Drawings will need to be updated, see comments above.	Updated.	
2.	See checklist for additional items required. Designer Response 26/03/2025	The manual needs to explain how the Suds system is designed to operate. Clarification needs to be included in terms of how the maintenance and replacement of components is funded ie. owner and/or occupants of dwellings. Remove foul treatment plant section as not applicable to the Suds. Include a specific section on the flow control chamber (including mesh filter)	The revised Maintenance Schedule Rev – P3) is acceptable in respect to all points except ownership and management / maintenance responsibilities. Updated management and maintenance plan awaited.	Updated. The client has confirmed that Fleurie Nursery Ltd will be responsible for the ownership, as well as the management and maintenance obligations referred to in the comment.	

		as this is one of the most critical elements. Designers response 01/09/2025 The manual has been updated to include the requested information and clarification on how the SuDS system is designed to operate. The section relating to the foul water treatment plant has been removed. Regarding the funding of maintenance and replacement of components (i.e., whether by the owner and/or occupants), this will be confirmed by the client. Once this information becomes available, confirmation will be provided immediately.			
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If a designer would like a .docx version of this document to aid administration of responses, please request this by email to land.drainage@arun.gov.uk.