Engineers Comments Regarding Surface Water Drainage

Application Reference:	AL/29/25/DOC	**Reviewer Reference:**	ADC/EXT4
Planning Officer:	Kathryn Welch	**Date of Review:**	17/03/2026
Site Name:	White Mill House Days Lane Aldingbourne BN18 0TA		
Application Description:	Approval of details reserved by condition imposed under reference AL/101/23/PL relating to condition number 4 - Biodiversity Enhancement Layout and condition number 10 - surface water drainage scheme.		
Assessment Number:	2 of 2		

Policy and Guidance Information

Arun District Council Surface Water Drainage Guidance (including design checklists) - https://www.arun.gov.uk/surfacewater

Land Drainage Consent – https://www.westsussex.gov.uk/fire-emergencies-and-crime/dealing-with-extreme-weather/flooding/flood-risk-management/ordinary-watercourse-land-drainage-consent/

Arun District Council Land Drainage Byelaws - https://www.arun.gov.uk/byelaws/

Arun District Council surface water pre-commencement conditions - https://www.arun.gov.uk/planning-pre-commencement-conditions

The National Standards for SuDS - https://www.gov.uk/government/publications/national-standards-for-sustainable-drainage-systems/national-standards-for-sustainable-drainage-systems-suds

The SuDs Manual [C753] by CIRIA

Response	Condition 10: **No objection**

References

The NPPF states that when determining any planning application, local planning authorities should ensure that flood risk is not increased elsewhere (paragraph 181, 182 and 187e). The PPG guides local planning authorities to refer to 'Sustainable drainage systems: non-statutory technical standards' [NsTS] and detailed industry guidance like The SuDS Manual [C753] by CIRIA to guide decisions about the design, maintenance, and operation of sustainable drainage systems for non-major development.

The NsTS have been superseded by the National Standards for Sustainable Drainage Systems [NSfS] from 19 June 2025.

This consultation has been primarily informed by the NSfS and The SuDS Manual.

Summary

This summary highlights if critical items aligning with each of the standards have been met. Critical items are highlighted in **bold** on our surface water drainage design checklist (linked above). A failure to address these will result in an **objection** to any application to discharge a surface water drainage design condition.

If any of these items are inadequately addressed by the submission, then their correction may result in a redesign of the surface water drainage scheme. A redesign is likely to have site wide implications such as the potential for storage structures to increase in volume or plan area, or the provision of other important infrastructure to satisfy the NSfS set out below.

All relevant items on the checklist are expected to be met before an application to discharge an application to discharge a SuDS design condition is supported.

Our response and requirements are elaborated upon or condensed within an attached comment tracker where necessary. If a comment tracker is provided a designer is encouraged to refer to this and respond to comments to aid further review. Please request a .docx version of this document to by email to land.drainage@arun.gov.uk if needed.

Standard	Assessment	Response
1. Runoff destination	Compliant	**No objection**
2. Interception drainage	Compliant	**No objection**
3. Extreme Rainfall and Flooding	Insufficient	**No Objection**
4. Water Quality	Compliant	**No objection**
5. Amenity	Compliant	**No objection**
6. Biodiversity	Insufficient	**No objection**
7. Construction, operation, maintenance, decommissioning and structural integrity	Compliant	**No objection**

Reviewed Plans

The following documents have been submitted and reviewed to inform this consultation with reference to surface water drainage:

- AAL402-AAL-ED-XX-DP-S-5001 Rev C01 - Drainage Layout
- AAL402-AAL-ED-XX-DP-S-5002 Rev P02 - Permeable Paving Dimensions
- AAL402-AAL-ED-XX-DD-S-5050 Rev C01 - Drainage Details
- AAL402 White Mill FLOW Output – A dated 17/07/2025
- FACTUAL LETTER REPORT - REF:24.1171 (26/03/2025)
- Permeable paving calculations dated 29/10/2022
- ECOLOGICAL ENHANCEMENT PLAN Version 2.0 amended 01.05.25
- Factual Letter Report CE24.1206 20/01/2025
- Water Treatment Assessment
- Permeable Paving - AAL402-AAL-ED-XX-DC-C-5002-P01

- Ecology Response
- Ecology response
- EMAIL 19.11.25 subplans
- EMAIL 25.09.25 EA consent
- EMAIL 29.10.25 Land Drainage Consent Query
- AAL402 White Mill FLOW Output Paving
- AAL402 White Mill FLOW Output
- Output Paving - C
- -AAL402-AAL-ED-XX-DC-C-5050-C02-DRAINAGE DETAILS
- -AAL402-AAL-ED-XX-DP-C-5001-C02-DRAINAGE LAYOUT

Condition wording

Condition 10 is worded as follows:

"*Development shall not commence, other than works of site survey and investigation, until full details of the proposed surface water drainage scheme have been submitted to and approved in writing by the Local Planning Authority. The design should follow the hierarchy of preference for different types of surface water drainage disposal systems as set out in Approved Document H of the Building Regulations, and the recommendations of the SuDS Manual produced by CIRIA. Design considerations must take full account of the 'Supplementary Requirements for Surface Water Drainage Proposals' produced by Arun District Council, and are an overriding factor in terms of requirements. Winter groundwater monitoring to establish highest annual ground water levels and winter percolation testing to BRE 365, or similar approved, will be required to support the design of any infiltration drainage. No building / No part of the extended building shall be occupied until the complete surface water drainage system serving the property has been implemented in accordance with the agreed details and the details so agreed shall be maintained in good working order in perpetuity.*

Reason: To ensure that the proposed development is satisfactorily drained in accordance with policies W SP1, W DM1, W DM2 and W DM3 of the Arun Local Plan. This is required to be a precommencement condition because it is necessary to implement the surface water drainage system prior to commencing any building works."

Consultation comments to the planning officer

1. Please see the attached comment tracker for detailed comments relating to the submission.

2. Most comments have been satisfactorily addressed. However, the contributing area has not been correctly modelled for the soakaway. The applicant has therefore not demonstrated that the surface water drainage design will not increase flood risk. **This point was not identified in the last consultation based on the same hydraulic model and as such the planning officer may wish to offer the applicant the opportunity to update the model in this application.**

3. Biodiversity and amenity benefits were previously accepted as compliant (when grouped together). The application was submitted prior to the publication of the new national standards for suds and as such, despite negligible biodiversity benefit being offered, no objection is raised to the application on this ground.

Drainage Impact on Other Planning Matters

This application has been assessed with regards to surface water drainage design only, together with land drainage aspects if deemed necessary.

Other planning matters occasionally effect the surface water drainage design. If plans relating to other matters have been assessed for their impact on the proposed drainage, then it must not be assumed that they have been assessed for any other purpose. The planning officer is advised to check for conflicts with any existing approved plans and to consult any relevant consultees as appropriate.

It has been identified that the following consultees may have comments about the plans that have been submitted and reviewed for this application:

☐ Landscaping officer (proposed trees and landscaping)
☐ Tree officer (existing trees)
☐ Environment Agency (main rivers and fluvial/tidal flood risk, River Arun internal drainage board, groundwater source protection zones)
☐ Southern Water (foul drainage and surface water disposal to public sewer network/groundwater source protection zones)
☐ Portsmouth Water (groundwater source protection zones)
☐ Lead local flood authority (all other sources of flooding and ordinary watercourses)
☐ Other: Specify ……
☒ None

Application Reference: AL/29/25/DOC Site Name: White Mill House Days Lane Aldingbourne BN18 0TA	Initial Issue Date: 23/01/2026 Issue Date: Reviewer Reference: ADC/EXT4b

Summary and Recommendation:

Condition 10: **No Objection**

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	ADC Drainage Comments	Designer Response	ADC Drainage Comments	ADC Drainage Comments
Date:	**23/06/2025 [AL/29/25/DOC]**	**23/10/2025 [AL/29/25/DOC7**		19/01/2026	17/03/2026
Condition Number: 10					
Comment Number					
1.	Please provide the infiltration testing data to support the design. Whilst this may have been previously provided under application AL/60/24/DOC, all data must be submitted with any new application. However, please note that testing must take place at the location and depth of the proposed infiltration structures. The previous testing does not achieve this in	Further infiltration testing noted. The use of the worst infiltration rate of 1.06x10-5m/s is acceptable and is a requirement. Comment closed			

	full and was also flawed for various other reasons identified in our consultation on AL/60/24/DOC. Therefore, further infiltration testing will be required this coming winter at an agreed time and locations, and at depths to correspond to the proposed crate soakaway and permeable paving. The testing report should include a plan showing where infiltration tests were completed. The dates of all tests and the calculations to establish the design infiltration rate must be submitted. Designer Response BRE365 Testing was undertaken by Constructive Evaluation, from which we have now based our design. REf: CE24.1206, though we have opted to use 1.06x10-5m/s rather than				

	the suggested 1.44x10-5m/s This was in the location and appropriate depth in relation to the proposed soakaway.				
2.	Provide impermeable area plan with areas to be drained in m2 Designer Response This is now provided	Noted. Comment closed			
3.	Show proposed base levels of the permeable paving on the layout plan. This will need to include base fall arrows and gradients Designer Response This is now provided	Noted. Comment closed			
4.	Clearly show RWP's on layout plan and provide suitable construction detail. Designer Response This is now provided	Noted. Comment closed			
5.	Dimension permeable paving extents on layout plan. Designer Response This is now provided	Noted. Comment closed			
6.	Connections direct to pipes ie. not to manholes, etc – to be made using oblique 45 degree junctions. Indicate this on the layout plan and	Add suitable note to layout plan, specifying use of 45 degree junctions for non-manhole connections, and as per construction detail	NOTE ADDED TO PLAN. SEE CONSTRUCTION ISSUE REV C01	Thank you. Comment closed.	

	provide suitable construction detail. Designer Response This is now provided				
7.	Specify pipe invert at entry into soakaway. Designer Response This is now provided	Noted. Comment closed			
8.	Specify pipe inverts for 100mm and 150mm diameter pipes at manhole S1. Designer Response This is now provided	Noted. Comment closed			
9.	Manhole S1 to be a catchpit – adjust manhole schedule and provide construction detail. Designer Response This is now provided	Manhole schedule to be updated – currently showing S2 as a catchpit instead.	SCHEDULE UPDATED. SEE CONSTRUCTION ISSUE REV C01	Thank you. Comment closed.	
10.	Provide sufficiently detailed landscaping layout to include any root protection zones associated with existing/proposed trees. This should be overlaid on the drainage layout to ensure no conflict. Designer Response ??	Exisiting tree/hedge root protection zones (RPZ's) now added to drainage layout plan. Whilst the pipes will be adequately protected where within the RPZ's, as they will be surrounded in concrete, due to depth of cover. The permeable paving requires additional protection, as permeable geotextiles can be	RPZ AREAS NOW GREATLY REDUCED DUE TO TREES COMING DOWN IN THE STORM. ONLY A SMALL AREA OF RPZ NOW AT THE SITE ENTRANCE. HY-TEX C3 ROOT BARRIER	Thank you. Comment closed.	

		penetrated by roots. Therefore, unless it can be proven that the geotextile is sufficient to resist intrusion, then root barriers should be considered along the eastern and southern boundaries of the permeable pavement. This is to be sufficiently detailed in terms of layout extents and construction details.	DETAIL NOW ADDED TO DETAILS DRAWING AND EXTENTS SHOWN ON GA.		
11.	Rainwater re -use not considered – please investigate and adjust the design accordingly. Designer Response Water butts now added, though we were not aware this was mandatory	Water reuse has always been considered a good thing to do. The new National Standards has now recognised this and considered it to be the number one priority in terms of surface water disposal options and a consideration of achieving 'interception'. Comment closed			
12.	Infiltrating into made ground needs to be avoided due to its variability in terms of porosity. The permeable paving design/construction will need to take account of this fact in terms of construction depth, etc. Designer Response Refer to Contructive Evaluation trial pit logs. The subbase will be well	Noted. Comment closed			

	below the 300mm of topsoil				
13.	Whilst infiltration rates have not yet been agreed, it is noted that the permeable paving and crate soakaway designs use the same rate. This is unlikely to be case as the structures are at completely different depths and therefore the geology/permeability are likely to differ. This will need adjusting accordingly once item 1 has been addressed/agreed. Designer Response The geology between the underside of the paving the underside of the soakaway is uniform and so the rate applied to both appropriate. See also supporting email from Constructive Evaluation on this.	Dues to the similarity of the geology, and the fact that the permeable paving is only draining water that falls upon it, the use of the infiltration rate of 1.06x10-5m/s is acceptable in this instance. Comment closed.			
14.	The surface water drainage statement identifies that the site is located in an outer groundwater source protection zone (bordering zone1). Please present advice from the Environment Agency and Portsmouth Water relating to infiltrating in this zone.	Awaited	EA COMMENTS NOW RECEIVED. NO PERMITS REQUIRED	Thank you. Comment closed.	

	Designer Response EA have been consulted. Awaiting response				
15.	Please provide an assessment of water treatment for the updated design in accordance with the Suds manual. Designer Response This is now provided	Noted. Comment closed			
16.	Hydraulic calculations; a) All additional storage settings to be set to zero unless a valid reason not to is provided. b) Infiltration rate can only be applied to the sides of the house soakaway and the base of the permeable paving ie. not applied to both sides and bases. c) Provide winter storm simulations for the permeable paving. d) Pipe gradients for the pipework associated with the house soakaway are inconsistent with the layout plan. e) Ensure the calculations for the permeable paving reflect item 3.	Permeable Paving Hydraulic Calculations: a) Adjust gradient of base formation level to correspond to proposed formation levels shown on the drainage layout plan. b) It is unclear as to the purpose of the short length 225mm diameter pipe?	SUBBASE NOW SHOWN AS BEING LAID FLAT ON GA DRAWING, SO NO GRADIENT ON THE FORMATION LEVEL DUMMY PIPE REMOVED FROM MODEL	The hydraulic calculations are not modelling the correct contributing area. The model dated 17/07/2025 accounts for a total of 0.012ha ($120m^3$) + 10% urban creep ($132m^2$). The layout, (which has been measured to corroborate), correctly states a contributing area of $138.58m^2$, when urban creep is accounted for, the contributing area should be $152.44m^2$. Please correct the model. Designer Response: THE HYDRAULIC CALCULATIONS HAVE	Item now closed

	f) The infiltration rate used in the calculations will be dependent on item 1. Designer Response This is now provided			BEEN ADJUSTED TO SHOW A CONTRIBUTING AREA OF 0.014ha (140m^2) + 10% URBAN CREEP = 154m^2 0.5m HAS BEEN ADDED TO THE LENGTH OF THE SOAKAWAY DUE TO THE SLIGHT INCREASE IN RUN-OFF VOLUME THE DRAINAGE LAYOUT AND DETAILS SHEET HAVE BEEN UPDATED ACCORDINGLY	

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.

[redacted]

From: Elaine Walby on behalf of Planning.Responses
Sent: 20 March 2026 16:13
To: Planning Scanning
Subject: FW: Planning Re-Consultation on: AL/29/25/DOC
Attachments: AL-29-25-DOC White Mill House-26-03-17.docx

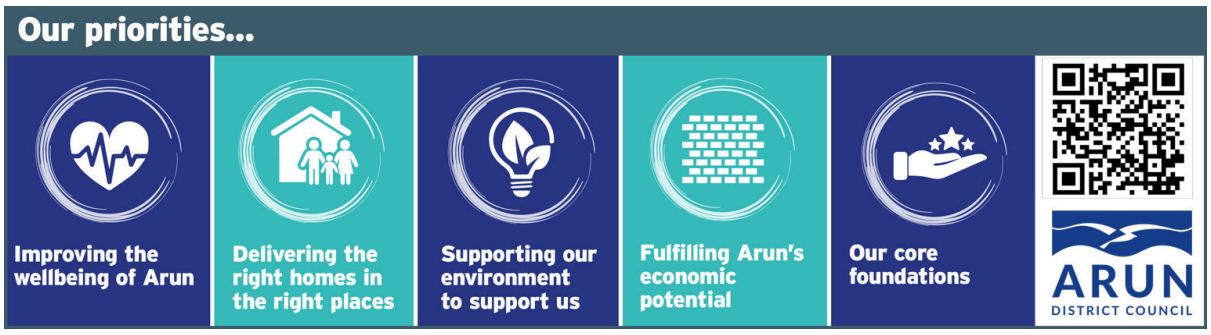
PL- Consultation- Engineers response

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From: Paul Cann <Paul.Cann@arun.gov.uk>
Sent: 20 March 2026 13:37
To: Planning.Responses <Planning.Responses@arun.gov.uk>
Cc: Land Drainage <Land.Drainage@arun.gov.uk>; Kathryn Welch <Kathryn.Welch@arun.gov.uk>
Subject: RE: Planning Re-Consultation on: AL/29/25/DOC

Please find enclosed our consultants response, recommending discharge of condition 10.

Regards

Paul Cann
Principal Drainage Engineer, Coastal Engineers and Flood Prevention

T: 01903 737819
E: paul.cann@arun.gov.uk

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From: Planning.Responses <Planning.Responses@arun.gov.uk>
Sent: 16 February 2026 16:07
To: Land Drainage <Land.Drainage@arun.gov.uk>
Subject: Planning Re-Consultation on: AL/29/25/DOC

To: **Engineers (Drainage)**

NOTIFICATION FROM ARUN DISTRICT COUNCIL

TOWN AND COUNTRY PLANNING ACT 1990

Application No:	**AL/29/25/DOC**
Registered:	3rd April 2025
Site Address:	White Mill House Days Lane Aldingbourne BN18 0TA
Grid Reference:	494859 107273
Category:	Discharge of Conditi
Description of Works:	Approval of details reserved by condition imposed under reference AL/101/23/PL relating to condition number 4 - Biodiversity Enhancement Layout and condition number 10 - surface water drainage scheme.

I am able to inform you that I have received an amendment to the above application dated 11th February 2026 relating to: Substitute drawings

If you should wish to make further representations as a result of this amendment, please make any further comment by **2nd March 2026.**

Click here to view the application, documents and make further comments

Please be aware that any comments you may make will be available on our website so please do not insert personal details or signatures on your reply.

Yours sincerely

Kathryn Welch

Planning Case Officer-Arun District Council

Telephone: 01903 737789

Email: kathryn.welch@arun.gov.uk

PLRECON_DOC (ODB) 2020