

## Engineers Comments Regarding Surface Water Drainage

<b>Application Reference:</b>	Y/32/25/PL	<b>Reviewer Reference:</b>	ADC/EXT4
<b>Planning Officer:</b>	Simon Davis	<b>Date of Review:</b>	24/10/2025
<b>Site Name:</b>	Land West of Bilsham Road Yapton BN18 0LA		
<b>Application Description:</b>	Erection of 170 No. residential dwellings (30% affordable), parking spaces, internal site roads, public open space, children's play space, pumping station, surface water drainage features, landscaping and associated works. This application is a Departure from the Development Plan and is in CIL Zone 3 and is CIL Liable as new dwellings.		
<b>Assessment Number:</b>	2 of 2		

Policy and Guidance Information
<p>Arun District Council Surface Water Drainage Guidance (including design checklists) - <a href="https://www.arun.gov.uk/surfacewater">https://www.arun.gov.uk/surfacewater</a></p> <p>Land Drainage Consent – <a href="https://www.westsussex.gov.uk/fire-emergencies-and-crime/dealing-with-extreme-weather/flooding/flood-risk-management/ordinary-watercourse-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/</a></p> <p>Arun District Council Land Drainage Byelaws - <a href="https://www.arun.gov.uk/byelaws/">https://www.arun.gov.uk/byelaws/</a></p> <p>Arun District Council surface water pre-commencement conditions - <a href="https://www.arun.gov.uk/planning-pre-commencement-conditions">https://www.arun.gov.uk/planning-pre-commencement-conditions</a></p> <p>The National Standards for SuDS - <a href="https://www.gov.uk/government/publications/national-standards-for-sustainable-drainage-systems/national-standards-for-sustainable-drainage-systems-suds">https://www.gov.uk/government/publications/national-standards-for-sustainable-drainage-systems/national-standards-for-sustainable-drainage-systems-suds</a></p> <p>The SuDs Manual [C753] by CIRIA</p>

Response	Objection

References
<p>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.</p> <p>The NsTS have been superseded by the National Standards for Sustainable Drainage Systems [NSfS] from 19 June 2025.</p> <p>This consultation has been primarily informed by the NSfS and The SuDS Manual.</p>

## 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 likely result in an **objection** to an objection to a full or reserved matters planning application.

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.

A full written explanation of the assessment and response is given in the consultation comments to the planning officer.

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

## Reviewed Plans

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

- PLANNING LAYOUT 1100 REV B
- GENERAL ARRANGMENT 170 UNIT REPLAN 24-217-200 REVE
- OVERALL DRAINAGE LAYOUT 170 UNIT REPLAN 24-217-256 REVC
- DETAILED SOFT LANDSCAPE STRATEGY SHEET 1 OF 2 9104 794-PLN-LAN-5304 REVP11
- LANDSCAPE AND SERVICES PLAN SHEET 1 OF 2 9108 794-PLN-LAN-5304 REVP07
- LANDSCAPE AND SERVICES PLAN SHEET 2 PF 2 9190 791-PLN-LAN-5304 REVP06
- LANDSCAPE AND SERVICES PLAN SHEET 2 OF 2 9109 794-PLN-LAN-5304 REVP07
- TREE SURVEY SHEET 1 OF 2 701
- TREE SURVEY SHEET 2 OF 2 702
- SOFT LANDSCAPE SPECIFICATIONS
- PHASE 1 DESK STUDY, SITE RECONNAISSANCE AND PHASE 2 SITE INVESTIGATION REPORT
- LAND CONTAMINATION SURVEY HER
- DESK STUDY AND PHASE 2 REPORT ISSUE 3 PART 2
- DESK STUDY AND PHASE 2 REPORT ISSUE 3 PART 3

- Flood Risk Assessment and Drainage Strategy 24-217 Rev. B June 2025 Part 1 of 3
- Flood Risk Assessment and Drainage Strategy 24-217 Rev. B June 2025 Part 2 of 3
- Flood Risk Assessment and Drainage Strategy 24-217 Rev. B June 2025 Part 3 of 3
- INDICATIVE SERVICES AND DRAINAGE CORRIDORS 24-217-210 REVC
- PRELIMINARY EXTERNAL WORKS CONSTRUCTION DETAILS 24-217-213
- PROPOSED LEVELS LAYOUT SHEET 1 OF 8 24-217-214 REVC
- PROPOSED LEVELS LAYOUT SHEET 2 OF 8 24-217-215 REVC
- PROPOSED LEVELS LAYOUT SHEET 3 OF 8 24-217-216 REVC
- PROPOSED LEVELS LAYOUT SHEET 4 OF 8 24-217-217 REVC
- PROPOSED LEVELS LAYOUT SHEET 5 OF 8 24-217-218 REVC
- PROPOSED LEVELS LAYOUT SHEET 6 OF 8 24-217-219 REVC
- PROPOSED LEVELS LAYOUT SHEET 7 OF 8 24-217-220 REVC
- PROPOSED LEVELS LAYOUT SHEET 8 OF 8 24-217-221 REVC
- PROPOSED SURFACE WATER DRAINAGE LAYOUT SHEET 1 OF 8 24-217-222 REVC
- PROPOSED SURFACE WATER DRAINAGE LAYOUT SHEET 2 OF 8 24-217-223 REVC
- PROPOSED SURFACE WATER DRAINAGE LAYOUT SHEET 3 OF 8 24-217-224 REVC
- PROPOSED SURFACE WATER DRAINAGE LAYOUT SHEET 4 OF 8 24-217-225 REVC
- PROPOSED SURFACE WATER DRAINAGE LAYOUT SHEET 5 OF 8 24-217-226 REVC
- PROPOSED SURFACE WATER DRAINAGE LAYOUT SHEET 6 OF 8 24-217-227 REVC
- PROPOSED SURFACE WATER DRAINAGE LAYOUT SHEET 7 OF 8 24-217-228 REVC
- PROPOSED SURFACE WATER DRAINAGE LAYOUT SHEET 7 OF 8 24-217-229 REVC
- PROPOSED FOUL WATER DRAINAGE LAYOUT SHEET 1 OF 8 24-217-230 REVC
- PROPOSED FOUL WATER DRAINAGE LAYOUT SHEET 2 OF 8 24-217-231 REVC
- PROPOSED FOUL WATER DRAINAGE LAYOUT SHEET 3 OF 8 24-217-232 REVC
- PROPOSED FOUL WATER DRAINAGE LAYOUT SHEET 4 OF 8 24-217-233 REVC
- PROPOSED FOUL WATER DRAINAGE LAYOUT SHEET 5 OF 8 24-217-234 REVC
- PROPOSED FOUL WATER DRAINAGE LAYOUT SHEET 6 OF 8 24-217-235 REVC
- PROPOSED FOUL WATER DRAINAGE LAYOUT SHEET 7 OF 8 24-217-236 REVC
- PROPOSED FOUL WATER DRAINAGE LAYOUT SHEET 8 OF 8 24-217-237 REVC
- PRELIMINARY EXTERNAL WORKS SHEET 1 OF 8 24-217-238 REVC
- PRELIMINARY EXTERNAL WORKS SHEET 2 OF 8 24-217-239 REVC
- PRELIMINARY EXTERNAL WORKS SHEET 3 OF 8 24-217-240 REVC
- PRELIMINARY EXTERNAL WORKS SHEET 4 OF 8 24-217-241 REVC
- PRELIMINARY EXTERNAL WORKS SHEET 5 OF 8 24-217-242 REVC
- PRELIMINARY EXTERNAL WORKS SHEET 6 OF 8 24-217-243 REVC
- PRELIMINARY EXTERNAL WORKS SHEET 7 OF 8 24-217-244 REVC
- PRELIMINARY EXTERNAL WORKS SHEET 6 OF 8 24-217-245 REVC
- PRELIMINARY DRAINAGE CONSTRUCTION DETAILS SHEET 1 24-217-253
- PRELIMINARY DRAINAGE CONSTRUCTION DETAILS SHEET 2 24-217-154
- OVERALL LEVELS LAYOUT 170 UNIT REPLAN 24-217-255 REVC
- OVERALL EXTERNAL WORKS 170 UNIT REPLAN 24-217-257 REVC
- SCHEMATIC SITE CROSS SECTIONS SHEET 1 OF 2 24-217-258 REVB
- SCHEMATIC SITE CROSS SECTIONS SHEET 2 OF 2 24-217-259 REVB
- SURFACE WATER MODELLED CATCHMENTS 24-217-SK002
- DESIGNER COMMENTS ON ADC DRAINAGE CONSULT RESPONSE

- Engineers Comments Regarding Surface Water Drainage

## Consultation comments to the planning officer

### 0. General

- 0.1. There are several elements including the drainage calculations and attenuation basin provisions which cause concern as it's not possible to accurately assess whether proposed drainage will increase flood risk.
- 0.2. The proposed surface water drainage has limited use of "at/near surface" SuDS features. This in turn is limiting the opportunity for adequate interception drainage. Consideration should be made to the use of "at source" SuDS features, such as rain gardens, roadside bio-retention features, all of which would promote interception drainage but would likely impact the current site layout.

### 1. Runoff destination

- 1.1. It is recognised that due to the high groundwater levels identified on site, infiltration is deemed not to be an option and therefore the development is proposed to connect to the existing watercourse (main river) at two locations. This is acceptable in principle.

### 2. Interception drainage

- 2.1. The requirement for interception measures to be provided within surface water drainage schemes has been promoted in lines with the SuDS manual C753 as well as the previous revision of the National SuDS Standards which all pre-date the updated release of the NSS in June 2025, as such the reasoning for not providing sufficient levels of interception of rainfall is unacceptable.
- 2.2. Interception drainage captures the first 5mm of all rainfall that falls on a site. This replicates greenfield conditions. The management of frequent events goes together with the control of extreme events to ensure that flood risk is not increased, and that water quality is not reduced because of a proposed development.
- 2.3. When SuDS design is only focussed on extreme events and infiltration into the ground is not viable, a site may be draining surface water to a watercourse or sewer at an agreed discharge rate when it would not drain there at all for frequent events, or during the initial stages of an extreme event. This can therefore increase flood risk if not addressed by interception drainage.
- 2.4. Designing for interception also helps to protect the morphology and ecology of the receiving surface water body

### 3. Extreme rainfall and flooding

- 3.1. Whilst the applicant has noted that the surcharged scenarios were modelled for both networks and provided references to pages in their calculations. These calculations do not appear to include the surcharged level. Without clear consideration of the surcharged level in the modelling the drainage proposals could increase flood risk and may need additional attenuation to accommodate a surcharged event. Without this information it's not clear if the surface water drainage proposals can accommodate these longer storm events without causing flooding and or site layout provides sufficient allowance for attenuation storage.

### 4. Water quality

4.1. The provision of the use of treatment in the attenuation basins is acceptable as detailed in the FRA section 7.2.8

5. Amenity

5.1. No assessment of amenity benefit has been submitted. However, the surface water drainage design has limited benefit towards placemaking and environmental enhancement (attenuation ponds being the exception). Water is not kept at or close to the surface and much of the design is of a conventional subterranean piped network with underground tanks contributing towards the storage. If further amenity benefits are provided this may impact the scale and layout of the development and is unlikely to be included via condition.

5.2. The depths of the water in the basins exceeds those recommended to manage health and safety risk. This may mean that amenity benefit is reduced. The SuDS Manual indicates that where deeper and larger open water storage features are required, they should have a maximum depth of 1.5m and should not exceed 2m in the most extreme design event.

5.3. The depth of basin 1 is 2.320m the peak design water level is 1.715m and whilst still less than 2m, the planning officer and designer are expected to consider the health and safety risk of the depths of the basins, in terms of increased risk, or the implications on amenity if barrier fencing is required. It is noted that The SuDS Manual dissuades the use of physical barriers to water as they can prevent or obstruct visual observance of the water body, and the provision of help in an emergency.

6. Biodiversity

6.1. It is anticipated that the two no. proposed attenuation ponds will contribute to the overall site biodiversity value. The planting regime within those features will also dictate the benefits gained and will need to be addressed during detailed design. Wet areas within the ponds should also be considered, but overall consideration to the operation of these basins should be made

7. Construction, operation, maintenance, decommissioning and structural integrity

7.1. The proposed attenuation basin 1 appears over 2m deep and will likely encounter groundwater. The ability of constructing and operating these basins whilst including adequate measures to counter the buoyancy effect of the high groundwater without impacting the current proposals is a concern. The concern is that there is a risk that the size and layout of the basins may need to change in plan area during the detailed design stage. This could result in an increase in plan area to account for reduced depth, impacting the layout and deliverable public open space area. Alternatively, the designer may increase the volume of below ground attenuation tanks thus reducing the water quality and biodiversity benefits these basins currently provide.

8. Suggested conditions / Overcoming the objection

8.1. As this is not a holding objection or a request for further information, requested conditions are not listed. If you are minded to approve this application, please reconsult engineers for a list of suggested conditions to ensure that the development is adequately drained and does not increase flood risk elsewhere.

**8.2. The imposition of conditions at this stage rather than overcoming the objection could result in a circumstance where the condition cannot be discharged. In the event of attaching a condition that cannot be discharged, permission may be invalid or that condition could be deemed to be unreasonable.**

8.3. If you are minded to allow the applicant additional time to submit further documents to support this application, then further evidence may overcome our objection. Please do not allow the applicant to submit further documents without prior discussion as to whether it will be possible for these to be assessed or influence your determination.

### 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


Drainage Engineers response

Arun District Council, Civic Centre, Maltravers Rd  
Littlehampton, West Sussex, BN17 5LF  
[www.arun.gov.uk](http://www.arun.gov.uk)

To register to receive notifications of planning applications in your area please go to  
<https://www1.arun.gov.uk/planning-application-finder>



**Our priorities...**

 Improving the wellbeing of Arun	 Delivering the right homes in the right places	 Supporting our environment to support us	 Fulfilling Arun's economic potential	 
--	---	---	--	--

**From:** Sarah Burrow <Sarah.Burrow@arun.gov.uk>  
**Sent:** 24 October 2025 13:01  
**To:** Planning.Responses <Planning.Responses@arun.gov.uk>  
**Cc:** Paul Cann <Paul.Cann@arun.gov.uk>; Simon Davis <Simon.Davis@arun.gov.uk>  
**Subject:** RE: Planning Consultation on: Y/32/25/PL

Hi Simon,

Find the consultation response – an objection – attached. Apologies for the delay in response.

I am submitting this consultation on behalf of Paul, our Principal Drainage Engineer. It has been completed by one of our external consultants.

Kind regards

**Sarah Burrow**  
**Flood Risk and Drainage Engineer, Coastal Engineers and Flood Prevention**






T: 01903 737815

E: [sarah.burrow@arun.gov.uk](mailto:sarah.burrow@arun.gov.uk)

Arun District Council, Civic Centre, Maltravers Rd  
Littlehampton, West Sussex, BN17 5LF  
[www.arun.gov.uk](http://www.arun.gov.uk)



**Our priorities...**

 Improving the wellbeing of Arun	 Delivering the right homes in the right places	 Supporting our environment to support us	 Fulfilling Arun's economic potential	 
---	--	--	---	---

---

**From:** Planning.Responses <[Planning.Responses@arun.gov.uk](mailto:Planning.Responses@arun.gov.uk)>  
**Sent:** 02 May 2025 08:19  
**To:** Land Drainage <[Land.Drainage@arun.gov.uk](mailto:Land.Drainage@arun.gov.uk)>  
**Subject:** Planning Consultation on: Y/32/25/PL

To: **Engineers (Drainage)**

**NOTIFICATION FROM ARUN DISTRICT COUNCIL**

**Town & Country Planning Act 1990 (as amended)**  
**Town and Country Planning (Development Management Procedure) (England) Order 2015**

**Planning Permission**

**Application No:** Y/32/25/PL  
**Registered:** 1st May 2025  
**Site Address:** Land West of Bilsham Road Yapton BN18 0LA  
**Grid Reference:** 497545 102448  
**Description of Works:** Erection of 170 No residential dwellings (30% affordable), parking spaces, internal site roads, public open space, childrens play space, pumping station,

surface water drainage features, landscaping and associated works. This application is a Departure from the Development Plan and is in CIL Zone 3 and is CIL Liable as new dwellings.

The Council have received the above application.

[Click here to view the application and documents](#) The website is updated once a day in the evening, so you may need to wait until the day after this notification to view the documents.

This application has been identified as CIL Liable. Therefore please be aware that, in accordance with Appendix 2 of the Arun CIL Charging Schedule, your consultation response should only include requests for Section 106 for onsite mitigation, Paghman Harbour Management Contributions (if applicable) or Affordable Housing. "Off" Site mitigation measures directly related to this development should be dealt with by condition if possible to ensure the scaling back of Section 106 if possible. CIL contributions will be used for "off" site infrastructure mitigation schemes. Therefore if this proposal triggers the need for "off" site mitigation, please ensure that you engage in the CIL Infrastructure List Consultation process upon receipt of a consultation letter.

Should you have any comments to make, these should be sent by replying to this email by 6th June 2025 . You can also monitor the progress of this application through the Council web site:

<https://www.arun.gov.uk/planning-application-search>

The application will be determined having regard to the development plan policies (if any are relevant) and other material considerations. The development plan can be accessed via the website

<https://www.arun.gov.uk/development-plan> as can information on what comments we can consider

<https://www.arun.gov.uk/planning-application-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.**

Should the application go to appeal the Planning Inspectorate will publish any comments made to the Council on their website: <https://acp.planninginspectorate.gov.uk/> but they will protect personal details.

In the absence of a reply within the period stated, I shall assume that you have no observations to make.

Yours sincerely

Mr S Davis

Planning Officer- Arun District Council

Telephone: 01903 737874

Email: [Simon.Davis@arun.gov.uk](mailto:Simon.Davis@arun.gov.uk)