

## Engineers Comments Regarding Surface Water Drainage

|                                 |                                                                                                                                                                                                                                                                                                                                                                                  |                            |            |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------|
| <b>Application Reference:</b>   | AL/27/26/RES                                                                                                                                                                                                                                                                                                                                                                     | <b>Reviewer Reference:</b> | ADC/EXT4b  |
| <b>Planning Officer:</b>        | Simon Davis                                                                                                                                                                                                                                                                                                                                                                      | <b>Date of Review:</b>     | 22/05/2026 |
| <b>Site Name:</b>               | Land West of Lidsey Road (A29) Lidsey PO22 9RG                                                                                                                                                                                                                                                                                                                                   |                            |            |
| <b>Application Description:</b> | Approval of reserved matters following outline consent AL/70/23/OUT for the development of 155 No residential dwellings with associated parking, landscaping, open space (including play areas), infrastructure, works and demolition of existing structures, 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>       | 1 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

|                 |                         |
|-----------------|-------------------------|
| <b>Response</b> | <b>Information only</b> |
|-----------------|-------------------------|

### 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 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                                                             | Insufficient | <b>Advice</b>       |
| 2. Interception drainage                                                          | Insufficient | <b>Advice</b>       |
| 3. Extreme Rainfall and Flooding                                                  | Insufficient | <b>Advice</b>       |
| 4. Water Quality                                                                  | Insufficient | <b>Advice</b>       |
| 5. Amenity                                                                        | Insufficient | <b>No objection</b> |
| 6. Biodiversity                                                                   | Insufficient | <b>No objection</b> |
| 7. Construction, operation, maintenance, decommissioning and structural integrity | Insufficient | <b>Advice</b>       |

## Reviewed Plans

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

- Detailed Play and Open Space Proposals Sheet 1 GLS\_020\_170\_P2\_2001 Rev F
- Detailed Play and Open Space Proposals Sheet 2 GLS\_020\_170\_P2\_2002 Rev G
- Hard Landscape Plans Sheet 1 GLS\_020\_170\_P2\_1601 REVC
- TREE PROTECTION 24114-3
- PHASE 2 PROPOSED FFLs, ROAD CONTOURS AND EXTERNAL LEVELS PLAN DS\_0707\_15/INF/200 REVB
- PHASE 2 STORM WATER AND FOUL WATER DRAINAGE LAYOUT SECTION 104 AGREEMENT PLAN DS\_0707\_15/INF/210 REVD
- PHASE 2 PRIVATE DRAINAGE CONSTRUCTION DETAILS. SHEET 3 DX\_0707\_15/INF/240
- DRAINAGE OWNERSHIP AND MAINTENANCE RESPONSIBILITY PLAN DS\_0707\_15/INF/292
- ATTENUATION POND AND WATERCOURSE EASEMENTS DS\_0707\_15/INF/293
- CATCHMENT AREA PLAN DS\_0707\_15/INF/295
- Hard Landscape Plans Sheet 2 GLS\_020\_170\_P2\_1602 REVC
- Hard Landscape Plans Sheet 3 GLS\_020\_170\_P2\_1603 REVC
- Hard Landscape Plans Sheet 4 GLS\_020\_170\_P2\_1604 REVC

- Hard Landscape Plans Sheet 5 GLS\_020\_170\_P2\_1605 REVC
- Hard Landscape Plans Sheet 6 GLS\_020\_170\_P2\_1606 REVC
- Hard Landscape Plans Sheet 7 GLS\_020\_170\_P2\_1607 REVC
- Hard Landscape Plans Sheet 8 GLS\_020\_170\_P2\_1608 REVC
- Open Space Calculations GLS\_020\_170\_P2\_1900 REVE
- PLANNING LAYOUT PHASE 2 (DIMS) ST-23-01 REV N (WITH DIMS.)
- PLANNING LAYOUT PHASE 2 ST-23-01 REVZ
- LOCATION PLAN PHASE 2 ST-23-02 REVB
- SuDS MAINTENANCE REPORT DS\_0707\_15
- STORM WATER DRAINAGE CALCULATION REPORT DS\_0707\_15

## Consultation comments to the planning officer

### 0. General

- 0.1. The surface water drainage conditions that were applied to the outline application are pre-commencement conditions. They do not prescribe that any element of the surface water drainage for the site must be agreed or approved with submission of the reserved matters application.
- 0.2. As the reserved matters do not explicitly include surface water drainage, it is not reasonable to object to the application on those grounds. This is because concerns relating to the surface water drainage of the site, even where it may impact the scale and layout that are proposed, cannot be used as a reason for refusal.
- 0.3. As such, the comments included in this consultation should be read as advice only. There are concerns raised which are likely to impact the scale and layout of the site. The planning officer and applicant are advised to consider these as they will be raised again when an application to discharge conditions is made.
- 0.4. If the applicant cannot satisfactorily discharge the relevant conditions within the proposed scale and layout of the site, then it is expected that a new application for the reserved matters is made. It therefore makes sense for comments relating to surface water drainage to be addressed at this stage to avoid the risk of unnecessary delay and expense if the scale and layout need to be later revised.

### 1. Runoff destination

- 1.1. The storm water calculation report (SWCR) does not include any reference to water reuse. This is the top priority disposal option and there is no justification for it not being provided.
- 1.2. Infiltration has been ruled out but no ground investigations have been submitted to demonstrate that infiltration is not viable. The absence of this data would normally warrant an objection in principle.
- 1.3. No evidence of the flow parameters (discharge rates and volumes) being agreed by the risk management authority have been submitted, for ordinary watercourses this should be from the LLFA; WSCC.

### 2. Interception drainage

- 2.1. The interception assessment does not include the contributing area of the basins themselves. It refers to swales and filter drains which are not shown on the drainage layout. Offline detention basins are included as interception areas without evidence that these would receive flow for regular events.
- 2.2. The assessment does not use a method prescribed by The SuDS Manual or the NSSDS and appears to double count the interception potential of the basins. Their interception area is counted and multiplied by 4 (correctly) to calculate the area that they intercept for (when online). However, the designer then attempts to demonstrate the volume of storage that is required within the basins for additional interception. This is inappropriate and means that insufficient inception is being proposed to ensure that this standard is being met.
- 2.3. This would normally result in an objection as infiltration is claimed not to be viable, leaving only evapotranspiration features and water reuse to deliver interception. Features that intercept rainwater via evapotranspiration have an open (normally vegetated) surface which can affect scale and layout.

### 3. Extreme rainfall and flooding

- 3.1. **The submission does not discuss, assess or mitigate for surface water flood risk.** There are areas of surface water flood risk within the site which connect to boundary watercourses. This means that flow is likely to enter the site from elsewhere. This flow should be modelled, and SuDS features should not be located in the flood risk areas (they are proposed to be). This will have a significant impact upon the proposed layout and would normally warrant an objection in principle. The drainage and level plans will need to clearly demonstrate that flood risk is not being increased by the proposed development. Where levels in surface water flood risk areas are being altered, compensation on a level for level and volume for volume basis will need to be provided. There must be no conflict between flood storage which will allow free flow of water, and SuDS storage which restricts flow of water.
- 3.2. No topographical survey has been submitted to support and assessment of the existing sub-catchments or to demonstrate the levels of the watercourses. This will also be necessary to support the hydraulic modelling of the watercourse catchment and associated surface water flood risk. Because no plans showing the existing levels have been submitted it is difficult to determine if levels are being raised on the site and the associated impacts.
- 3.3. The catchment area plan demonstrates that the contributing areas of the basins have not been accounted for in the design. Patios and ancillary buildings appear to not have been included, and gardens should have a factored contributing area if they are to be positively drained (with channel or threshold drains for example). The underassessment of contributing area means that additional storage will be required – this may affect the scale and layout of the site. This would normally result in an objection.
- 3.4. The application does not adequately demonstrate that the correct rainfall data has been used to model the design. Whilst the data has been purchased, the software does not support it's use and the results do not tabulate the rainfall data that has been input (if done manually) to check that it is correct. If FEH2013 rainfall data has been used for the model (as shown in the results) then this may underestimate the volume of rainfall entering the system and further storage may be required.

3.5. CV values should be set to 1 for both the design and simulation settings on the model (the design settings will affect the pipe sizes and the simulation the volume of storage). A detailed design check has not been completed due to the high-level and fundamental concerns relating to the design which we expect to result in a complete redesign of the surface water drainage for the site.

#### 4. Water quality

4.1. No detailed water treatment assessment has been submitted, the absence of this would normally warrant an objection in principle. An assessment conforming to the advice of The SuDS Manual will be expected to demonstrate that adequate water treatment is provided by the proposed design. This assessment will be expected to cover each treatment train rather than a single assessment for the site as a whole.

#### 5. Amenity

5.1. Open features and multifunctional permeable paving is proposed. No amenity assessment is included in the submission but features that provide amenity are proposed.

5.2. The side slopes of 2 of the basins are 1:2. This contradicts design guidance and present maintenance challenges. Side slopes are expected to be a maximum of 1:3 gradient. This will affect the scale and layout of the development and would warrant objection.

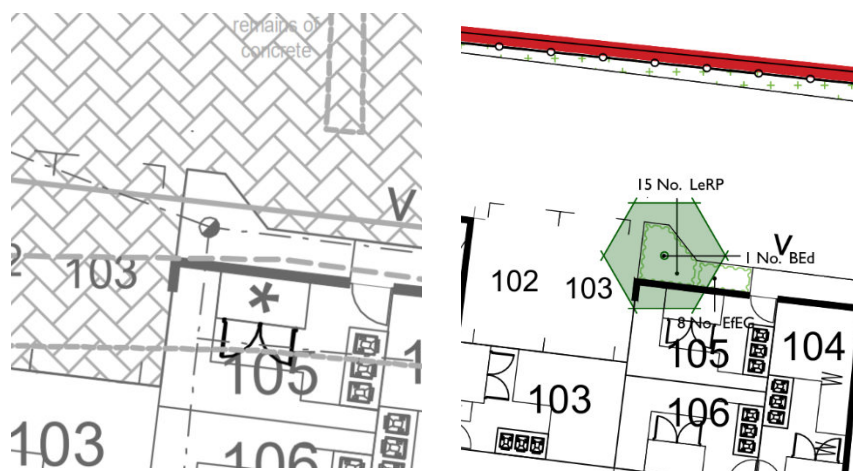
5.3. Maximum water depths in the southwest basin exceed 1.5m and therefore a RoSPA assessment will be necessary to demonstrate that the design is sufficiently safe. If the basin needs to be redesigned to reduce the maximum depth then this will impact the scale and layout of the development.

#### 6. Biodiversity

6.1. A BRO assessment has not been submitted to support the application. This should be assessed by the ecology officer. Open features are proposed which will offer biodiversity benefit.

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

7.1. There are likely to be conflicts between the surface water drainage and the landscaping. An example is illustrated below, however this is not isolated.



7.2. Groundwater is stated to be high on the site. Mitigation against the risk of floatation is likely to be required but has not been considered at this stage. If basins need to be made more shallow to mitigate risk of floatation then this may affect the scale and layout of the development.

#### 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

**From:** Elaine Walby on behalf of Planning.Responses  
**Sent:** 26 May 2026 16:13  
**To:** Planning Scanning  
**Subject:** FW: Planning Consultation on: AL/27/26/RES  
**Attachments:** AL-27-26-RES - Land West of Lidsey Road.docx

PL- Consultation- Engineers response

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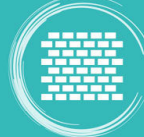
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Delivering the right homes in the right places



Supporting our environment to support us



Fulfilling Arun's economic potential



Our core foundations



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**From:** Paul Cann <Paul.Cann@arun.gov.uk>  
**Sent:** 26 May 2026 13:49  
**To:** Planning.Responses <Planning.Responses@arun.gov.uk>  
**Cc:** Land Drainage <Land.Drainage@arun.gov.uk>; Simon Davis <Simon.Davis@arun.gov.uk>  
**Subject:** RE: Planning Consultation on: AL/27/26/RES

Please find enclosed our consultants response.

Regards

**Paul Cann**  
**Principal Drainage Engineer**, Coastal Engineers and Flood Prevention

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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:** 28 April 2026 17:54  
**To:** Land Drainage <[Land.Drainage@arun.gov.uk](mailto:Land.Drainage@arun.gov.uk)>  
**Subject:** Planning Consultation on: AL/27/26/RES

To: **Engineers (Drainage)**

## NOTIFICATION FROM ARUN DISTRICT COUNCIL

The Town & Country Planning Act 1990 (as amended)

Town & country Planning (Development Management Procedure) (England) Order 2015 - Article 6

### Approval of Reserved Matters Following Outline Approval

|                              |                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Application No:</b>       | <b>AL/27/26/RES</b>                                                                                                                                                                                                                                                                                                                                                              |
| <b>Registered:</b>           | 20th April 2026                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Site Address:</b>         | Land West of Lidsey Road (A29) Lidsey PO22 9RG                                                                                                                                                                                                                                                                                                                                   |
| <b>Grid Reference:</b>       | 493590 103813                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Description of Works:</b> | Approval of reserved matters following outline consent AL/70/23/OUT for the development of 155 No residential dwellings with associated parking, landscaping, open space (including play areas), infrastructure, works and demolition of existing structures, 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, Pagham 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 29th May 2026 . 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

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