

Engineers Comments Regarding Surface Water Drainage

Application Reference:	LU-124-25-RES	Reviewer Reference:	ADC/EXT2/D2134/82
Planning Officer:	Hannah Kersley	Date of Review:	22/10/2025
Site Name:	Land west of Bridge Road Roundabout Littlehampton BN17 5DF		
Application Description:	Approval of reserved matters following outline consent LU/238/20/OUT for 60 No dwellings to include a multi-functional gym building. This application is a Departure from the Development Plan, may affect a public footpath, lies within the parish of Climping and is in CIL Zone 3 and is CIL Liable as new dwellings.		
Assessment Number:	1 of 2		

Policy and Guidance Information

Arun District Council Surface Water Drainage Guidance - <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/> and <https://www.arun.gov.uk/land-drainage-consent/>

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

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>

The SuDs Manual [C753] by CIRIA

Response	Objection
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Critical Items for Surface Water Drainage Design Conditions

The failure to adequately address the following items will result in an objection to a surface water drainage design.

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.

Critical Item	Reason	Status
Winter groundwater monitoring data.	Adequate winter groundwater monitoring data must be supplied to evidence that infiltration designs have sufficient freeboard from the base of structures and the peak groundwater level.	Compliant

	The same data is necessary to ensure that the potential for buoyancy has been adequately considered in attenuation designs.	
Winter infiltration testing data.	Adequate winter infiltration testing must be supplied to justify the proposed discharge method and design infiltration rates. Infiltration tests must be completed strictly in accordance with BRE DG 365, CIRIA R156 or a similar approved method. Testing depths must account for peak groundwater levels and correspond with the location and depth of proposed infiltration features. Designs must be based upon the <u>slowest</u> infiltration rate evidenced closest to a proposed infiltration feature. Average design rates will not be accepted. The results of incomplete tests should not be extrapolated to obtain design values for infiltration rates.	Not supplied
The hierarchy for sustainable drainage.	The proposed discharge method must accord with the SuDS hierarchy as given below. Evidence must be supplied to justify the proposed discharge method. 1. Rainwater reuse where possible. 2. Complete discharge into the ground (infiltration). 3. Hybrid infiltration and restricted discharge to an appropriate water body or surface water sewer. 4. Restricted discharge to an appropriate water body. 5. Restricted discharge to a surface water sewer. 6. Restricted discharge to a combined sewer. A water body may be defined as a river, watercourse, ditch, culverted watercourse, reservoir, wetland or the sea. Engineers cannot support any proposed connection of surface water to the foul sewer.	Not supplied
Calculations	Calculations for pre-development run off rates must be based upon the positively drained area only.	Not supplied

	Proposed discharge rates must not increase flood risk on site or elsewhere. Discharge rates must be restricted to QBAR or 2 l/s/ha, depending on whichever is higher.	
	Designs must be based on the most recently available rainfall data at the time of conditions being applied. <u>FSR rainfall data will not be accepted.</u> FEH rainfall data is based upon more recent records and continues to be updated.	Not supplied
	Designs must use the correct climate change allowances at the time of determination of the outline or full planning application. CV values for all events must be set to 1. This includes summer, winter, design, and simulation events. The correct allowance for urban creep must be applied. Additional storage must be set to zero unless it can be evidenced where this is provided. Infiltration half-drain times must be less than 24 hours. Infiltration design rates must be applied to the sides of soakaways, or to the base of infiltration blankets. Design rates must not be applied to both the base and sides of infiltration structures. A surcharged outfall must be modelled.	Not supplied
Natural catchments design.	The submission must define the natural drainage characteristics within, and hydraulically linked to, the site and demonstrate that the drainage proposals will integrate with and not compromise the function of the natural and existing drainage systems. The condition, performance (including capacity where appropriate) and ownership of any existing site surface water drainage infrastructure must be accurately reported. Appropriate easements to watercourses and other services must be shown on all plans.	Not supplied

	Where there are areas of flood risk from any source on the site, it must be shown how a sustainable surface water drainage design can be accommodated on the site without conflicting with those areas of flood risk. Designs must replicate the natural drainage catchments of the site. All surface water drainage designs must therefore drain via gravity to corresponding points of discharge. The use of pumps for surface water drainage is not sustainable and will only be considered where the designer has fully demonstrated that they are proposed as a last resort.	
Plans	Plan areas, depths and levels of drainage infrastructure must accurately correspond with the supporting calculations.	Not supplied
Water quality benefits.	An assessment of water quality is necessary to evidence that the proposed design provides adequate treatment of surface water.	Not supplied
Biodiversity and amenity benefits.	The surface water drainage design must provide biodiversity and amenity benefits.	Not supplied
Trees and planting	There should be no conflict between surface water drainage infrastructure and existing or proposed trees or planting. The design must consider the potential growth of proposed trees and adequate mitigation must be provided to protect drainage infrastructure where conflict cannot be avoided.	Insufficient

Drainage Impact on Other Planning Matters

This application has been assessed with regards to surface water drainage design only.

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, groundwater source protection zones)
- ☐ Southern Water (foul drainage and surface water disposal to public sewer network)
- ☐ Portsmouth Water (groundwater source protection zones)
- ☐ Lead local flood authority (all other sources of flooding and ordinary watercourses)
- ☐ Other:
- ☐ None

Additional comments to the planning officer

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' 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.

This consultation has been primarily informed by The SuDS Manual.

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

- HYDROGEOLOGICAL ASSESSMENT AND GROUNDWATER MONITORING
- FRA and Surface Water information from Agent - 21.8.25
- BLOCK PLAN 030-SSA-S3RM-(MP.XX)-DR-A-003 REVD
- PROPOSED PARAMETER PLAN ACCESS AND EASEMENT 030-S3-PO43 REVB
- SPOT LEVELS 030-SSA-S3R(MP.ZZ)-DR-A-013 REVA
- OPEN SPACES AREA 030-SSA-S3RM-(MP.ZZ)-DR-A-006 REVC
- DETAILED LANDSCAPING 030-SSA-S3RM-(MP.ZZ)-DR-A-007 REVA
- PLANTING SCHEDULE 030-SSA-S3RM-(MP.ZZ)-DR-A-600 REVA
- BOUNDARY SECTIONS 030-SSA-S3RM-(MP.XX)-DR-A-011 REVA
- BOUNDARY SECTIONS 2 030-SSA-S3RM-(MP.XX)-DR-A-012 REVA

Insufficient information has been submitted for us to be able to determine if the surface water drainage within the proposed scale, layout and landscaping of the development is achievable without increasing flood risk on site or elsewhere. The submission fails to demonstrate compliance with national guidance like the national standards for SuDS or The SuDS Manual. The absence of a drainage strategy supported by ground investigations, plans and modelling means that we object in principle to the application.

Please see the attached comment tracker for further comment on missing information. Bold items are needed to demonstrate that the design can be delivered within the proposed layout. Should the planning officer allow further submission of information then it is likely that further detailed

comments will be made. The 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.

A reduced **site-specific** version of our full surface water drainage design checklist is provided below. This has been edited to remove elements that are not applicable to this site, either due to the scale of the proposal or the method of disposal. The checklist is provided to assist the applicant and designer in preparing a revised design to meet our requirements.

- Items highlighted as must be provided prior to determination to overcome our objection.
- Additional comments or notes are provided by the reviewer **in bold**.
- If an item has been submitted this is checked: ☒
- For HH, OUT, RES and PL applications only: All other items are assumed to be handled via a condition applied to the permission if given.

The full unedited surface water design checklist is available on our website at <https://www.arun.gov.uk/surfacewater/>. **If the design is amended following receipt of our consultation the designer may need to refer to the full checklist to ensure that the revised design meets our requirements.**

Suggested conditions / Overcoming the objection

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 attempt to ensure that the development is adequately drained and does not increase flood risk elsewhere.

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.

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.

Land west of Bridge Road RA Designer Checklist

Ground Investigation Results

Groundwater monitoring

- ☒ Plan showing location of monitoring points provided.
- ☒ Depths of holes detailed.
- ☒ Dates of observations and depth to groundwater recorded.
- ☒ Evidence of the strata within borehole or monitoring pits provided.

Requested to aid speed of assessment

- ☒ Plan showing the peak groundwater levels at each monitoring point in mAOD.
- ☒ Peak groundwater levels recorded in metres below ground level and mAOD.
- ☒ If in an area of possible tidal influence, provide a comparison of readings against tide times/levels.

Infiltration testing

- ☐ Completed strictly in accordance with BRE DG 365, CIRIA R156 or a similar approved method.
- ☐ Plan showing location of trial pits provided.
- ☐ Pit dimensions provided.
- ☐ Depths of testing provided.
- ☐ Dates, times and readings of each test recorded.
- ☐ Calculations for the infiltration rate for each test provided.
- ☐ Evidence of the strata within trial pits provided.
- ☐ Test locations, and depths correspond with the expected location and depths of proposed infiltration features.

Requested to aid speed of assessment

- ☐ Depths of testing provided in m below ground level and mAOD.

Other

As appropriate, dependent upon specific site conditions

- ☐ Geotechnical advice relating to the siting of infiltration features and risk of dissolution. (Usually where chalk strata is evidenced.)
- ☐ Geotechnical advice relating to the risk of slope instability due to infiltration.
- ☐ Geotechnical and structural advice where infiltration is proposed closer than 5m to buildings or structures.
- ☐ Contamination evaluation assessment where infiltration is proposed in ground that may be contaminated.
- ☐ Geotechnical advice where infiltration is proposed into made ground (to be generally avoided).
- ☐ Geotechnical advice relating to infiltration capacity, and risk of settlement or instability where careful use of ground raising is proposed.
- ☐ Specialist advice and confirmation of acceptability from the Environment Agency where the use of deep bore soakaways is proposed.

Surface Water Drainage Statement

Disposal method (Select as appropriate)

- ☒ Rainwater reuse is proposed where possible.
- ☐ Infiltration is proposed and maximised wherever possible.

- ☐ Hybrid infiltration and restricted discharge to an appropriate water body or surface water sewer is proposed where a full infiltration design is not possible.
- ☒ Restricted discharge to a water body is proposed where a full infiltration design is not possible.
- ☐ Restricted discharge to a surface water sewer is proposed where a full infiltration design is not possible and there are no nearby water bodies.
- ☐ Restricted discharge to a public or private highway drainage network is proposed where a full infiltration design is not possible and there are no nearby water bodies or surface water sewers.
- ☐ Restricted discharge to a public combined sewer is proposed where a full infiltration design is not possible and there are no water bodies, surface water sewers, highway, or private drainage systems nearby.

Disposal method justification

- ☐ Infiltration has been adequately investigated, in winter, at appropriate and varying depths where appropriate, above peak recorded winter groundwater levels at the given location.
- ☐ Onsite and boundary, open and culverted water bodies are investigated (location, mapping, network, flow direction, ownership/responsibility, depth, and condition).
- ☐ Offsite nearby downstream water bodies are investigated (location, mapping, network, flow direction, ownership/responsibility, depth, and condition).
- ☐ Surface water sewer network is investigated (location, mapping, network, flow direction, ownership/responsibility, depth, capacity, and condition).
- ☐ Public and private downstream highway drainage networks are investigated (location, mapping, network, flow direction, ownership/responsibility, depth, capacity, and condition).
- ☐ Combined downstream sewer network is investigated (location, mapping, network, flow direction, ownership/responsibility, depth, capacity, and condition).
- ☐ Any relevant permissions or legal agreements from asset or landowners that are needed are identified and evidence of consents provided.

Requested to aid speed of assessment

- ☐ Any previous relevant correspondence or pre-application advice from the Local Planning Authority [LPA] or the Lead Local Flood Authority [LLFA] regarding the surface water drainage design is included with the statement.

Existing Site

Essential

- ☐ It is clear what the natural drainage characteristics of the site and hydraulically linked areas are.
- ☒ Natural flow paths are identified on a plan (where applicable).
- ☐ Existing site drainage features are investigated – condition, performance, and ownership.
- ☐ Environmentally sensitive receiving water bodies are identified – for example groundwater source protection zones.
- ☐ Any appropriate easements to watercourses or other infrastructure are investigated.
- ☐ Existing and future flood risk from any source is detailed.

It is suggested that the above is achieved with the following, which may be combined where appropriate:

- ☒ An existing topographical plan.
- ☒ An existing drainage catchment plan.
- ☒ An existing site surface water drainage plan (where applicable).
- ☒ Flood maps (fluvial, tidal, pluvial, groundwater, sewer, and reservoir) are supplied (or Flood Risk Assessment referred to).
- ☐ Confirmation and surveys of any existing drainage infrastructure on the site.

- ☐ Full details of any known flooding on the site.

Proposed Design

Essential

☐ Statement confirming the proposed design criteria including fixed design calculation inputs for the SuDS system. Examples include:

- Climate change allowances,
- Urban creep allowance,
- CV values,
- Rainfall data,
- MADD factor or additional storage.

☐ Natural catchments are followed.

☐ Where phased construction is proposed, the phases correspond to natural catchments and can function independently from each other.

☐ The design is gravity based with no use of pumps.

☐ Natural systems that deliver specific hydrological function, such as watercourses or wetlands, are preserved.

☐ Where there is existing drainage infrastructure on the site it is clearly explained or illustrated what is being retained, upgraded, or removed.

☐ Relevant restrictions relating to discharging to an environmentally sensitive receiving water body – for example a groundwater source protection zone - are investigated, reported and adhered to.

☐ Details of necessary off-site works and consents are provided.

☐ It is shown how a surface water drainage design will not conflict with additional areas of flood storage or compensation.

☐ Surface water flow entering the site from elsewhere is conveyed safely around or through the site without compromising the SuDS system.

☐ Where runoff from elsewhere is drained together with the site runoff, the contributing catchment is modelled as part of the drainage system.

☐ If the surface water drainage is designed to flood in the 1% Annual Exceedance Probability [AEP] + Climate Change Allowance [CCA] event, then the flood volume is contained safely on site without flooding any part of a building or utility plant susceptible to water or affecting safe access or egress.

☐ The design provides and evidences interception drainage and is able to capture and retain on site the first 5mm of the majority of all rainfall events.

☐ Water quality and treatment is adequately assessed – with an assessment appropriate for the scale and proposed use of the site.

☐ Adequate freeboard is provided between the top water level of any open storage features and the top of the bank.

☐ There are no clashes with other infrastructure.

☐ Self-cleansing velocities are achieved where pipes are proposed.

☐ 1m freeboard is provided between peak groundwater levels and the base of any infiltration feature.

☐ The proposed discharge rate is explained and justified (for attenuation designs).

☐ Where discharge is proposed to a public surface water or combined sewer, a capacity check confirming that the sewer can receive the proposed flows is submitted.

☐ Adequate freeboard is provided between peak groundwater levels and the base of any attenuation feature (refer below if this is not possible).

- ☐ Where there is a risk that the base of an attenuation feature may penetrate peak groundwater levels, additional mitigation measures to prevent groundwater ingress are incorporated into the design and construction method statement.
- ☐ Where there is a risk that the base of an attenuation feature may penetrate peak groundwater levels the effects of buoyancy have been considered in the design.
- ☒ Amenity benefits are provided by the drainage system (assessed by others).
- ☒ Biodiversity benefits are provided by the drainage system (assessed by others).
- ☒ Landscaping has been designed to ensure ease of maintenance of drainage assets.
- ☐ The justification and criteria for tree root avoidance and mitigation measures is clear, referencing adopting body standards where applicable.
- ☐ Biodiversity and ecological enhancements do not impede the functionality, maintenance or capacity of the drainage system.
- ☒ It is confirmed what elements of the SuDS will be private.
- ☒ It is confirmed what the adoption arrangements for SuDS components will be.
- ☐ A construction method statement for the SuDS system, appropriate to the scale of the development, is submitted.
- ☒ A maintenance plan for the SuDS system, appropriate to the scale of the development, is submitted. [Please refer to our SuDS Maintenance Checklist where this is stipulated by condition.]
- ☐ Any potential health and safety issues relating to SuDS implementation and management have been considered and managed.

Preferred

- ☐ Ground raising is avoided where possible.
- ☐ The drainage system is considered by and contributes to the biodiversity net gain statement (assessed by others).

Impermeable Area/Catchment Plan

Essential

- ☐ Different drainage catchments are demarcated.
- ☐ Where phased construction is proposed, each phase is shown on a plan.
- ☒ An impermeable area plan is provided showing all positively drained areas including open surface water storage plan areas.

Preferred

- ☐ Impermeable areas are shown in m² on the impermeable areas plan(s).
- ☐ Demarcated impermeable areas correspond with the distribution of those areas in the supporting calculations.

Surface Water Drainage Calculations

General

- ☒ The most recently applicable, or previously agreed FEH rainfall data is used.
- ☒ CV values for all events are set to 1. This includes summer, winter, design, and simulation events.
- ☒ The correct climate change allowances, appropriate for the full lifetime of the development, have been applied to all calculations.
- ☒ A 10% allowance for urban creep is applied to all residential roof areas.

- ☒ 100% Annual Exceedance Probability [AEP] + Climate Change Allowance [CCA] (1 in 1 year) event calculations provided.
- ☐ 10% AEP + CCA (1 in 10 year) event calculations provided showing that the incoming pipe to any infiltration feature is above this level.
- ☒ 3.33% AEP + CCA (1 in 30 year) event calculations provided showing that the full surface water volume is contained within the designed system without flooding.
- ☒ 1% AEP + CCA (1 in 100 year) event calculations provided showing that the full surface water volume is contained safely on site, without flooding any part of a building or utility plant susceptible to water or affecting safe access or egress.

Infiltration

- ☐ Half drain times do not exceed 24 hours for the 10% AEP + CCA and 1% AEP + CCA events.
- ☐ If half drain times exceed 24 hours for the 1% AEP + CCA event, then advice and agreement from the LPA has been sought and submitted.
- ☐ The most precautionary design infiltration rate is used.
- ☐ Design infiltration rates are applied to the sides of soakaways only.
- ☐ Design infiltration rates are applied to the base of permeable paving, infiltration blankets or basins only.
- ☐ Where the design infiltration rate is applied to the base an appropriate factor of safety is applied.

Attenuation and Restricted Discharge

- ☐ Greenfield run off rates are based upon the positively drained area of the site only.
- ☒ Discharge rates are restricted to QBAR or 2 l/s/ha, depending on whichever is higher, for all storms up to the 1% AEP + CCA event.
- ☒ Half drain times and available capacity in the drainage system for subsequent storms are considered.
- ☐ Brownfield run off rates are based upon the positively drained area of the site only.
- ☐ Brownfield sites aspire to achieve greenfield runoff rates and volumes, where infiltration is not viable. If the proposed run off rate is higher than the greenfield run off rate, then an acceptable justification is provided, and the rate has been agreed with any relevant bodies.
- ☒ A surcharged outfall to a watercourse or sewer has been modelled. The surcharge level is the 1% AEP + CCA flood event for the receiving watercourse, or to the top of the bank if appropriate hydraulic modelling is not available.
- ☒ A surcharged outfall to a tidal waterbody has been modelled. The surcharge level is based upon present day extreme sea levels with an allowance for sea level rise applied.

Requested to aid assessment

- ☒ FEH22 point descriptors for the site are provided.

Drainage Plans and Specifications

Essential

Plans are provided showing:

- ☒ The proposed design within the proposed site layout.
- ☐ Existing site sections and levels.
- ☒ Proposed site sections and levels.
- ☒ Long and cross sections for the proposed drainage system including final finished floor levels.
- ☒ Exceedance flow management routes.
- ☒ Details of connections to watercourses and sewers.
- ☐ Maintenance access and any arisings storage and disposal arrangements.

These plans must be of sufficient detail that a reviewer can be confident that the design can be constructed without flood risk being increased on site or elsewhere.

Specifications are required for all materials used in the design. We suggest that this is best achieved and illustrated with site specific construction detail drawings. The combination of construction details, with plans and sections, ensure that the proposed standard of construction will facilitate adoption and maintenance by an appropriate body and have structural integrity.

The following checklist is designed to demonstrate the level of detail required:

Easements

- ☐ 3m easements are shown from the top of the bank of all ordinary watercourses, and from the edge of all culverted watercourses on all plans.
- ☒ 8m easements are shown from the top of the bank of all main rivers on all plans - unless an alternative easement has been stipulated by the Environment Agency.
- ☐ Any appropriate easements as stipulated by any public or private utility provider shown on all plans.
- ☐ Infiltration features (aside from permeable paving that does not take any extra impermeable catchment such as a roof) are shown at least 5m from buildings or structures.
- ☒ Maintenance easements are shown from the top of the bank from all open SuDS features on all plans.
- ☐ Existing trees and their root protection zones are shown on any drainage layout.
- ☐ Proposed trees and appropriate easements are shown on any drainage layout.

Detail

- ☒ It can be clearly determined what a pipe's diameter, pipe materials, gradients, flow directions and invert levels are from the plans.
- ☒ It can be clearly determined what an inspection chamber or manhole's cover level, invert level, cover loading grade and sump depth (where applicable) are from the plans.
- ☐ All infiltration or attenuation features (including permeable paving) are clearly labelled with their dimensions, invert/base levels and cover levels.
- ☒ Control structures are labelled with discharge rates, hydraulic head, invert and cover levels and ideally model number.
- ☒ Operational characteristics of any other mechanical features are detailed.
- ☒ Measures to protect drainage from tree root damage are clearly shown on any drainage layout.
- ☒ Any areas of necessary ground raising are clearly justified and demarked on a plan, with depths and levels.
- ☒ If the 1% AEP + CCA event floods, then the extent and depth of the flooding is shown on a site plan. This plan includes proposed external ground levels and finished floor levels of buildings.
- ☐ Potential flow routes off site are shown. The plan also includes proposed external ground levels, finished floor levels of buildings and designed slopes on all impermeable surfaces such as highways or car parks.
- ☐ Cross sections and long sections of all open features are provided.
- ☒ Construction detail drawings are site specific.
- ☒ Construction detail drawings are provided for all components including but not limited to:
 - ☐ Infiltration structures
 - ☒ Attenuation structures
 - ☒ Manholes/inspection chambers
 - ☒ Catchpits/silt traps
 - ☒ Flow control devices

- ☐ Permeable paving
- ☐ Headwalls
- ☐ Channel drains
- ☐ Gullies
- ☐ Pipe bed and surround
- ☐ Pipe to pipe connections
- ☐ Filter strips or drains
- ☐ Swales
- ☐ Bio-retention systems
- ☐ Ponds and wetlands
- ☐ Tree pits and measures to protect drainage from root incursion
- ☐ Water treatment features
- ☐ Green roofs
- ☐ Measures to protect drainage from tree roots.
- ☐ Water butts or alternative methods of water reuse – also to be shown on plans.

The following items are requested to aid assessment or confidence in construction:

- ☐ Where features have a non-uniform plan area, a plan showing the coordinates of the perimeter is provided.
- ☐ All drainage infrastructure is labelled to correspond with the supporting calculations.

Other

- ☐ Open feature planting specification is provided (to be assessed by others).

This checklist is designed to aid an applicant with their submission. The list is not exhaustive, and our engineers may request additional information to enable them to review a proposal to their satisfaction.

The checklist may also request information that an applicant does not feel is relevant to their submission. In this case the applicant can provide an explanation as to why they have omitted certain information in their drainage statement. However, the appraising engineer reserves the right to request this information if they believe it is necessary for their review.

Application Reference: LU-124-25-RES Site Name: Land west of Bridge Road Roundabout Littlehampton BN17 5DF	Initial Issue Date: 20.10.2025 Issue Date: 20.10.2025 Reviewer Reference: ADC/EXT2/D2134/82
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Summary and Recommendation:

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	Designer Response			
Date:	20.10.2025				
Comment Number					
1.	Firstly there is some uncertainty we are in receipt of all relevant information from the RES application as it appears that other historic information for other planning applications has not been provided. The applicant must ensure ALL relevant information is provided for each new application. Please provide a copy of the FRA report and subsequent drainage strategy and/or design. Whilst intended as a guide, please refer to the checklist item highlighted which clarifies the requirements.				
2.	Please indicate how the national standards for SuDS are going to be met and delivered within the proposed scale and layout of the site. Where departures from these standards may be necessary these must be highlighted and requested. A request for a departure does not mean that it will be supported or agreed.				
3.	Please provide a site plan / topographic survey detailing the historic overland flow routing.				
4.	Please provide a site plan / levels design detailing the post completion overland flow routing.				
5.	Please provide calculations for QBAR and confirm that the cumulative discharge rate is representative of the developed areas that are being positively drained.				

6.	The 1D model must include a supporting plan to denote all nodes/links or cascade approach.				
7.	Noting the tidal outfall is anticipated, a surcharged scenarios must be simulated and flap valve measures considered.				
8.	Confirmation of the Main River impacts is required; will there be modifications to the existing defences governed by the EA.				
9.	Further to the above, whilst an email summary addresses minimum FFL's and freeboard, further evidence is required.				
10.	Please confirm if defence overtopping risks have been addressed.				
11.	There may be SUDS located within areas at risk of flooding. Please refer to ADC surface water, SUDS in flood risk areas.				
12.	Engineering drawing must show compliance for Main River buffer zones.				
13.	The surface finish/landscaping drawing 007 does not align with the key. Are there any permeable surfaces?				
14.	The signage drawing does not include any signage for the Main River, pontoon, etc. Noting the areas to be used by pedestrians and infrequent vehicles, are there not any flood warning requirements?				
15.	Please provide evidence of the FRAP and/or approval in principle for the surface water outfall arrangement.				
16.	Bespoke details for each SUDS feature /outfall are required. These shall include measures to counter tidal/groundwater ingress.				

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.

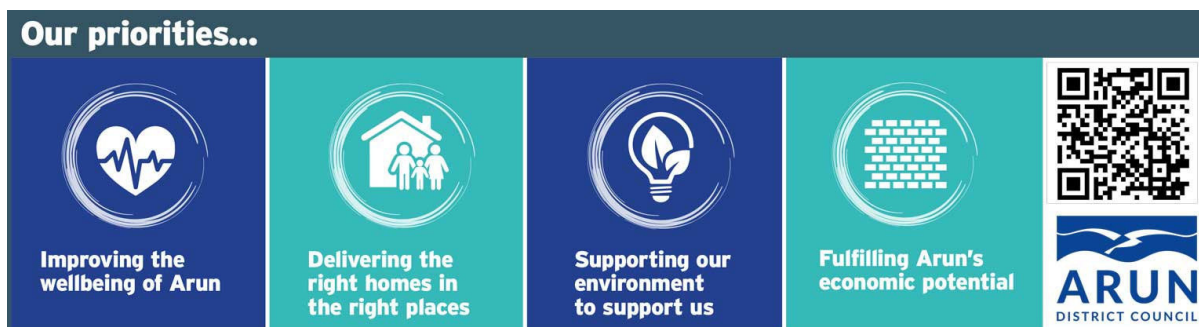
[REDACTED]

Drainage Engineers response

[REDACTED]

Arun District Council, Civic Centre, Maltravers Rd
Littlehampton, West Sussex, BN17 5LF
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>



From: Sarah Burrow <Sarah.Burrow@arun.gov.uk>
Sent: 24 October 2025 10:11
To: Planning.Responses <Planning.Responses@arun.gov.uk>
Cc: Hannah Kersley <Hannah.Kersley@arun.gov.uk>; Paul Cann <Paul.Cann@arun.gov.uk>
Subject: RE: Planning Consultation on: LU/124/25/RES

Hi Hannah,

Find the consultation response – an objection in principle – 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.

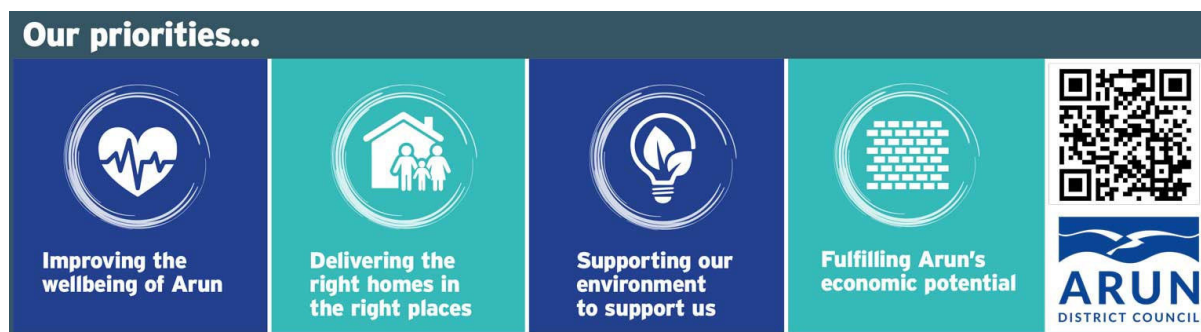
Kind regards

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

T: 01903 737815

E: sarah.burrow@arun.gov.uk

Arun District Council, Civic Centre, Maltravers Rd
Littlehampton, West Sussex, BN17 5LF
www.arun.gov.uk



From: Planning.Responses <Planning.Responses@arun.gov.uk>
Sent: 26 September 2025 14:49
To: Land Drainage <Land.Drainage@arun.gov.uk>
Subject: Planning Consultation on: LU/124/25/RES

To: **Engineers (Drainage)**

NOTIFICATION FROM ARUN DISTRICT COUNCIL

TOWN AND COUNTRY PLANNING ACT 1990

Application No: LU/124/25/RES
Registered: 10th July 2025
Site Address: Land west of Bridge Road Roundabout Littlehampton BN17 5DF
Grid Reference: 501575 102594
Category: Plan Applicat'n

Description of Works: Approval of reserved matters following outline consent LU/238/20/OUT for 60 No dwellings to include a multi-functional gym building, and 32 No leisure moorings. This application is a Departure from the Development Plan, may affect a public footpath, lies within the parish of Climping and is in CIL Zone 3 and is CIL Liable as new dwellings.

I am able to inform you that I have received an amendment to the above application dated 26th September 2025 relating to:- Amended description to include 32 moorings

If you should wish to make further representations as a result of this amendment, please make any further comment by **30th October 2025**.

[Click here to view the application, documents and make further comments](#)

Please be aware that Planning Services operate an 'open file' policy and will publish your comments including your name and address on the website. We will aim to redact signatures, telephone numbers and email addresses but please help us by not incorporating them in the body of your text. Please make sure that you only include information that you are happy will be published in this way. If you supply information belonging to a third party, you must make sure you have their permission to do so.

Yours sincerely

Hannah Kersley

Planning Case Officer- Arun District Council

Telephone: 01903 737856

Email: hannah.kersley@arun.gov.uk

PLRECON (ODB) 2018