

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



From: Sarah Burrow <Sarah.Burrow@arun.gov.uk>
Sent: 08 September 2022 10:22
To: Planning.Responses <Planning.Responses@arun.gov.uk>
Cc: Simon Davis <Simon.Davis@arun.gov.uk>; Paul Cann <Paul.Cann@arun.gov.uk>
Subject: RE: Planning Consultation on: AL/49/22/PL

Dear Simon,

Please see attached for engineers comments regarding surface water drainage for this application. May I offer my unreserved apologies for the delay in response.

Kind regards

Sarah Burrow
Engineering Assistant, Coastal Engineers and Flood Prevention

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From: Planning.Responses <Planning.Responses@arun.gov.uk>

Sent: 05 May 2022 15:34

To: Land Drainage <Land.Drainage@arun.gov.uk>

Subject: Planning Consultation on: AL/49/22/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: AL/49/22/PL

Registered: 5th May 2022

Site Address: Sussex Recovery Company Fontwell Avenue Eastergate PO20 3RU

Grid Reference: 494421 105756

Description of Works: Demolition of all existing buildings and structures and redevelopment of the existing car salvage and recycling facility to provide 80 No dwellings and a co-working hub, with vehicular access from Fontwell Avenue, provision of public open space, landscaping, and other associated works. This application is a Departure from the Development Plan 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 details](#)

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 11th June 2022 . 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

PLCONSULT (COB) 2020

We would not recommend approval until the following has been addressed

- 1) CV values of 0.75 and 0.84 have been applied within the calculations, which only account for runoff from impermeable surfaces within the site. This is likely to lead to an underestimate in required storage volumes within any SuDS.
 - Current guidance from HR Wallingford conclude that the assumption of 0.84 runoff from impermeable / paved surfaces is “not particularly conservative” for sizing SuDS, and a value of CV = 1 should be used in situations where runoff from only the impermeable areas is considered.

Consequently, the applicant should either;

- Include pervious areas such as gardens within the drainage catchments.
- Or
- Adjust the CV value to 1.0 within the drainage calculations.

It is acknowledged that this adjustment is only required for sizing the SuDS attenuation volumes and not the pipework within the development.

- 2) Many of the proposed soakaways are in close proximity to other soakaways. The effects of interference between soakaways located near to each other should be considered within the drainage calculations, e.g. if any soakaways are located within 10m of another infiltration feature.
- 3) A justification for why base infiltration has been applied to some of the drainage features should be provided. Base infiltration should only be applied to infiltration drainage features where base infiltration is a significant contributing factor, e.g. infiltration blankets, or permeable paving, and should not be applied to soakaways.
- 4) The infiltration test results included within the appendix of the Flood Risk Assessment, Surface and Foul Water Drainage Strategy Report show only 1 test carried out in each trial pit location, rather than the 3 tests required by BRE365. Additional testing should be carried out to confirm that infiltration rates do not decrease with subsequent tests and in accordance with BRE365, the lowest of these 3 tests per trial pit should be taken as the infiltration rate for that location. As only a single test appears to have been carried out, this could result in an overestimate of infiltration rate and thus result in difficulties achieving half drain times, or required storage volumes at the detailed design stage. In a worst case scenario, this could require additional space for more infiltration SuDS to be located onsite. As the layout is fixed we therefore require this additional testing to be carried out in advance of permission being granted.
- 5) Pollution control section 5.8.3 states achieved, calculations for this are included in appendix F and include indices for filter drains / soakaways. We note that reliance on house soakaways to provide treatment may require design changes from a ring / house soakaway design, due to the associated indices requiring (paraphrased from table 26.4 C753) a suitable depth of filtration material, i.e. gravel with sufficient smaller particles but not single sized coarse aggregate. The applicant should confirm that there is sufficient flexibility in the design to allow a smaller graded aggregate to be used if the soakaways are providing treatment and design requires it.
- 6) We request that the gravel surround for any of the ring soakaways should be shown on the drainage layout plan, this is to ensure the surround does not conflict with any other features specified within the scheme design, or come within 5m of any building.
- 7) The phase 1 study report identifies potential contamination at the site. The use of infiltration SuDS will limit the options for mitigating any contamination found by further studies and could control the depth of any soakaway, e.g. barriers would not be possible as this would prohibit runoff from infiltrating into the ground. Furthermore, if replacement of topsoil is needed for areas where contamination is found, this will effect infiltration rates and could affect ground stability. Due to this uncertainty, we recommend further information on the potential contamination at the site be provided by the applicant, which should include the proposed mitigation measures for any contamination that is present. This is to ensure such measures will not interfere, or at worse prohibit, the effectiveness of the proposed drainage strategy.

We request a **holding objection** to the application until the above points have been addressed and reviewed.

In addition to these comments, we would strongly recommend that the applicant reviews our technical guidance and requirements for DOC applications, which is available on our website: Drainage Planning Consultations | Arun District Council.

- The applicant should confirm that the SuDS have been excluded from the open space allowance calculations by providing a summary table of the developed and open space allowance areas.
- New climate change guidance has recently been published (May 2022) and it is recommended that the new climate change allowances are considered, unless the applicant provides reasonable justification for why they consider a lower allowance is acceptable.
- Calculations for return periods other than the design rainfall event should be provided. The calculations should also be run for rainfall events which exceed a duration of 1440 minutes.
- Our guidance states all major applications must include a 10% allowance for urban creep applied to the design. A 10% allowance has not been applied.
- *The Sewerage undertaker should be consulted regarding the capacity of the existing drainage network and a Grampian style condition imposed on planning consent if upgrades to the sewer system are required to facilitate the new development. This should not be left to the DOC or detailed design stage, and any Grampian condition should take into account the expected timescales for upgrades to the sewer network to be made in line with OFWAT's advice.*

Should the LPA be mindful to accept the application against our advice, we would request that the following planning conditions be applied.

PCENG2

"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 guidance provided by 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 pre-commencement condition because it is necessary to implement the surface water drainage system prior to commencing any building works.

And the accompanying informative:

INFORMD

"Infiltration rates for soakage structures are to be based on percolation tests undertaken in the winter period and at the location and depth of the proposed structures. The infiltration tests must be carried out in accordance with BRE365, CIRIA R156 or a similar approved method. All design storms must include a climate change allowance, as per <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>, on stored volumes or rainfall intensity. Infiltration structures must cater for the critical 1 in 10 year storm event, (plus 45%) between the invert of the entry pipe to the soakaway and the base of the structure. All surface water drainage designs must also have provision to ensure there is capacity in the system to contain the critical 1 in 100 year storm event (plus 45%).

Freeboard is to be provided between the base of the infiltration structure and the highest recorded groundwater level identified in that location. Ideally this should be 1 metre where possible, as stated in the CIRIA Suds Manual guidance. However, on the coastal plain in particular, where geology dictates and where shallow perched/tidally

influenced water tables are often present, this is unlikely to be achievable. Irrespective of this, infiltration must still be fully considered. Therefore, to maximise this potential and avoid utilising other less favourable methods of surface water disposal, the bases of infiltration structures are permitted to be immediately above the peak recorded groundwater levels where it is deemed necessary.

In areas where an aquifer is to be protected (subject to guidance from the Environment Agency) then a minimum 1 metre freeboard must be provided.

Suitable water treatment is required upstream to the point of discharge in all circumstances to minimise any groundwater pollution risk or detriment to the drainage network.

Any SuDS or soakaway design must include adequate groundwater monitoring data to determine the highest groundwater table in support of the design. The applicant is advised to discuss the extent of ground water monitoring with the council's engineers.

Supplementary guidance notes regarding surface water drainage are located at <https://www.arun.gov.uk/drainage-planning-consultations> on Arun District Council's website. A surface water drainage checklist is available on Arun District Council's website, this should be submitted with a Discharge of Conditions Application. Reference should also be made to the 'West Sussex LLFA Policy for the Management of Surface Water'."

PCENG D3

"The development shall not proceed until details have been submitted to and approved in writing by the Local Planning Authority for any proposals: to discharge flows to watercourses; or for the culverting, diversion, infilling or obstruction of any watercourse on or adjacent to the site. Any discharge to a watercourse must be at a rate no greater than the pre-development run-off values and in accordance with current policies. No construction is permitted, which will restrict current and future landowners from undertaking their riparian maintenance responsibilities in respect to any watercourse or culvert on or adjacent to the site."

Reason: To ensure that the proposed development is satisfactorily drained in accordance with policies W DM1, W DM2 and W DM3 of the Arun Local Plan. And to ensure that the duties and responsibilities, as required under the Land Drainage Act 1991, and amended by the Flood and Water Management Act 2010, can be fulfilled without additional impediment following the development completion. It is considered necessary for this to be a pre-commencement condition to protect existing watercourses prior to the construction commencing.

And the accompanying informative:

INFORM D2

"Under Section 23 of the Land Drainage Act 1991 Land Drainage Consent must be sought from the Lead Local Flood Authority (West Sussex County Council), or its agent (Arun District Council land.drainage@arun.gov.uk), prior to starting any works (temporary or permanent) that affect the flow of water in an ordinary watercourse. Such works may include culverting, channel diversion, discharge of flows, connections, headwalls and the installation of trash screens.

The development layout must take account of any existing watercourses (open or culverted) to ensure that future access for maintenance is not restricted. No development is permitted within 3m of the bank of an ordinary watercourse, or 3m of a culverted ordinary watercourse."

PCENG D4

"Development shall not commence until full details of the maintenance and management of the surface water drainage system is set out in a site-specific maintenance manual and submitted to, and approved in writing, by the Local Planning Authority. The manual is to include details of financial management and arrangements for the replacement of major components at the end of the manufacturer's recommended design life. Upon completed

construction of the surface water drainage system, the owner or management company shall strictly adhere to and implement the recommendations contained within the manual."

Reason: To ensure that the proposed development is satisfactorily drained in accordance with policies W DM1, W DM2 and W DM3 of the Arun Local Plan. It is considered necessary for this to be a pre-commencement condition to ensure that the future maintenance and funding arrangements for the surface water disposal scheme are agreed before construction commences.

ENG D1

"Immediately following implementation of the approved surface water drainage system and prior to occupation of any part of the development, the developer/applicant shall provide the local planning authority with as-built drawings of the implemented scheme together with a completion report prepared by an independent engineer that confirms that the scheme was built in accordance with the approved drawing/s and is fit for purpose. The scheme shall thereafter be maintained 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.

And the accompanying informative:

INFORM D4

A surface water drainage verification condition guidance note is available at <https://www.arun.gov.uk/drainage-planning-consultations>, this clearly sets out our requirements for discharging this condition.