



From: Laura Gibbons <Laura.Gibbons@arun.gov.uk>
Sent: 11 May 2021 12:09
To: Planning.Responses <Planning.Responses@arun.gov.uk>
Cc: Michael Eastham <Michael.Eastham@arun.gov.uk>
Subject: RE: Planning Consultation on: AB/135/20/OUT

Dear Michael,

We have no further comments to those which we raised on the 13th January (copied below for ease of reference). We would like to highlight our request for pre-commencement conditions.

Engineers Comments Regarding Surface Water Drainage from 13th January

There are several ordinary watercourses that are within and bound this site. The masterplan appears to account for the majority of these watercourses. All structures, ponds, etc. must be kept at least 3m from the top of bank of any ditch. Land drainage consent will be required for any proposals to infill, culvert, divert, or modify the ditches. If it is proposed to discharge surface water to watercourse it will be required that the applicant evidences that the receiving watercourses are in an appropriate condition, some works may be required.

Unfortunately, the topographic survey supplied is not legible on the planning system. We would like to remind the applicant that the sites natural topography and catchments must be followed in the formation of a drainage strategy.

We note that the drainage strategy has been formed based on attenuation, this is sensible as it is a worst case scenario. However, the hierarchy for sustainable drainage must be followed with infiltration fully investigated. Winter infiltration testing and winter groundwater monitoring must be undertaken, it is advised that the applicant discusses the extent of this monitoring with us at the earliest opportunity. Infiltration tests must be carried out in accordance with BRE365, CIRIA R156 or a similar approved method and cater for the 1 in 10 year storm plus climate change between the invert of the entry pipe to the soakaway, and the base of the structure. It must also have provision to ensure that there is capacity in the system to contain below ground level the 1 in 100 year event plus 40% on stored volumes, as an allowance for climate change. Adequate freeboard must be provided between the base of the soakaway structure and the highest recorded annual groundwater level identified in that location.

It should be noted that peak groundwater levels are also required for attenuation schemes to demonstrate that the design adequately accounts for flotation.

If on-site infiltration is not possible, drainage via a restricted discharge to a suitable local watercourse may be acceptable. We note the surface water drainage strategy proposes on discharging at greenfield 1 in 30 year and 1 in 100 year, discharge should occur at greenfield QBar. We also note that the calculation of this discharge rate should be based upon proposed impermeable area, so should be reviewed as design progresses. Surcharged outfalls should

be included within design, with surcharge levels set to top of bank levels or corresponding product 4 return period event levels where relevant.

Surface water drainage features should also be designed in a manner that positively affects the amenity of the site. We would like to remind the developer that, open features, such as swales, basins and ponds, when designed correctly, can satisfy all the above aspirations in addition to; being easier to maintain, having longer lifespans and offering ecological advantages over subterranean features such as “plastic crate systems”.

It should also be noted that attenuation features should not be counted within useable public open space provision and must be located outside of areas at risk of flooding, e.g. flood zone 2 and 3. Adequate treatment of surface water must be ensured prior to discharge, and treatment where possible should be provided at source.

We would encourage the applicant to progress drainage proposals as early as possible. At Reserved Matters it will be necessary for the applicant to demonstrate that there is adequate space for surface water drainage within the proposed layout and that it does not conflict with other matters such as landscaping and open space provision.

If you are minded to approve the application please apply the following conditions to ensure that the development is adequately drained and does not increase flood risk elsewhere.

PCENG D2

“Development shall not commence, other than works of site survey and investigation, until full details of the proposed surface water drainage scheme have been submitted to and approved in writing by the Local Planning Authority. The design should follow the hierarchy of preference for different types of surface water drainage disposal systems as set out in Approved Document H of the Building Regulations, and the recommendations of the SuDS Manual produced by CIRIA. 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:

INFORM D

“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 percolation tests must be carried out in accordance with BRE365, CIRIA R156 or a similar approved method and cater for the 1 in 10 year storm between the invert of the entry pipe to the soakaway, and the base of the structure. It must also have provision to ensure that there is capacity in the system to contain below ground level the 1 in 100 year event plus 40% on stored volumes, as an allowance for climate change. Adequate freeboard must be provided between the base of the soakaway structure and the highest recorded annual groundwater level identified in that location. Any SuDS or soakaway design must include adequate groundwater monitoring data to determine the highest winter groundwater table in support of the design. The applicant is advised to discuss the extent of groundwater monitoring with the Council's Engineers. Supplementary guidance notes regarding surface water drainage are located here <https://www.arun.gov.uk/surfacewater> on Arun District Councils website. A surface water drainage checklist is available on Arun District Councils website, this should be submitted with a Discharge of Conditions Application.”

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. No construction is permitted, which will restrict current and future

land owners 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:

INFORMD2

“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.”

PCENG4

“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.

ENG1

“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.

Regards,

Laura Gibbons

Drainage Engineer

Engineering Services

Please note that I work Tuesdays 08:00-16:00 for Arun only.



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

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

Sent: 07 March 2021 08:06

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

Subject: Planning Consultation on: AB/135/20/OUT

To: **Engineers (Drainage)**

NOTIFICATION FROM ARUN DISTRICT COUNCIL

TOWN AND COUNTRY PLANNING ACT 1990

Application No: AB/135/20/OUT

Registered: 14th December 2020

Site Address: Land at Ford Road Arundel

Grid Reference: 500665 106227

Category: Plan Applicat'n

Description of Works: Outline application with some matters reserved (except for access) for the development of 90 dwellings & associated amenity land, including land for a community building & for a community allotment. This application affects the setting of listed buildings & affects the character & appearance of the Arundel Conservation Area.

I am able to inform you that I have received an amendment to the above application dated 8th March 2021 relating to:- amended location plan and Design and Access Statement

[Click here to view the plans and documents](#)

If you should wish to make further representations as a result of this amendment you should click the link below and then click on 'Enter comment'.

[Click here to make further comments](#)

Please make any further comment by **10th April 2021**.

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

Michael Eastham

Planning Case Officer- Arun District Council

Telephone: 01903 737772

Email: michael.eastham@arun.gov.uk

PLRECON (ODS) 2018