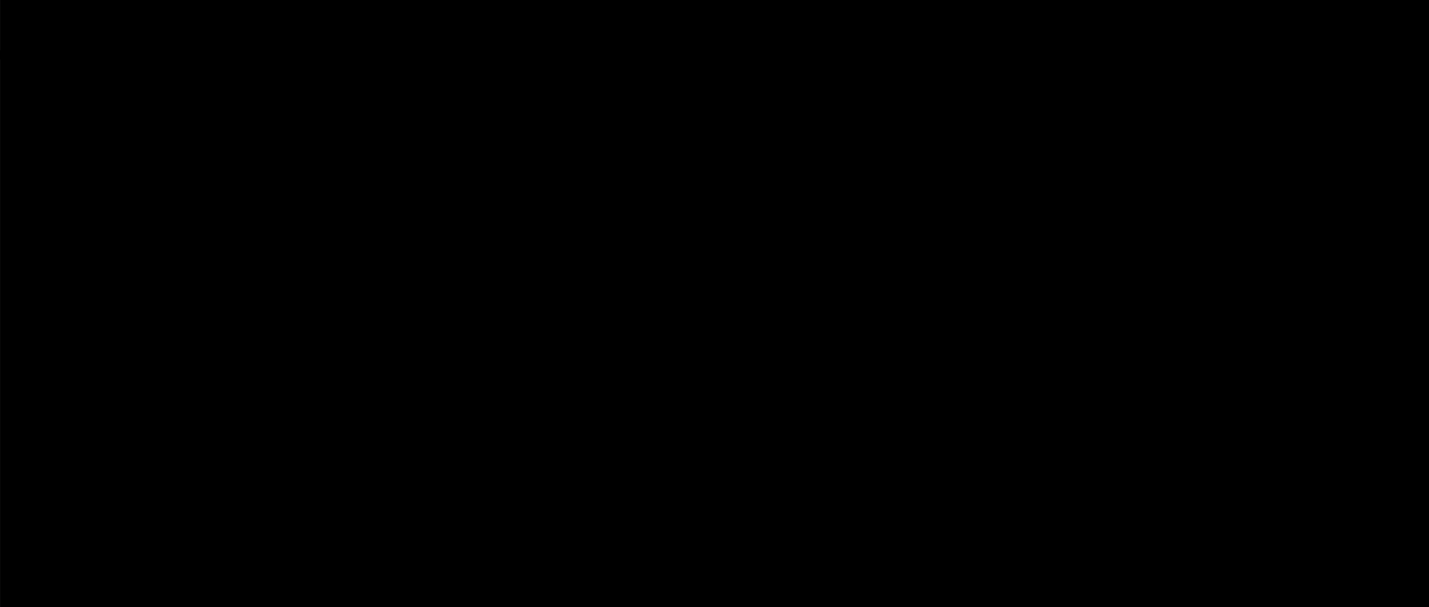




From: Laura Gibbons
Sent: 05 September 2019 10:37
To: Planning.Responses <Planning.Responses@arun.gov.uk>
Cc: Andrew Wood <Andrew.Wood@arun.gov.uk>
Subject: RE: Planning Consultation on A/113/19/DOC

Engineers Comments Regarding Condition 9- surface water drainage design

1. Groundwater monitoring was undertaken and recorded groundwater to shallow depths of 0.43, 0.66 and 0.89mbgl. It is accepted that the results from WS1 and WS2 should be used for the surface water drainage design as they are relevant to the areas proposed for infiltration. It is not clear what the maximum recorded groundwater level was at each monitoring location respectively. Please can this be confirmed.
2. Infiltration testing was completed at one location and gave rates of $5.13 \times 10^{-4} \text{ms}^{-1}$ at 0.9m depth. This is deeper than the highest recorded groundwater levels and the scarcity of infiltration testing is of significant concern. We would have expected at least one further infiltration test, ideally two further tests at the proposed location and depth of infiltrating structures.
3. Please can an impermeable areas plan be provided that clearly shows the impermeable areas draining to each surface water drainage feature.
4. The filter drain is inadequate. Maximum modelled water depths are nearly 1m. This clearly will not be able to be contained above maximum recorded groundwater level.
5. From looking at cross sections it also appears that the filter drain will be on a slope, please ensure this is accurately depicted within calculations.
6. Please provide evidence that a resin bound surface with open surface course asphalt is permeable. We have significant concerns over the permeability of this type of surface now and over the design lifetime.
7. A permeable liner should fully wrap around the sub-base of the permeable paving areas.
8. Please confirm material specification for filter drain. All sub-base material should be no fines.
9. Are diffusers to be used to disperse surface water into permeable paving subbases? Please provide construction details and locations of these if so. Diffusers should be located 5m from buildings, therefore the use of permeable patios to receive roof water is not acceptable.

10. Catchpits must be provided upstream of all connections to permeable paving. Please ensure the location of rwp, catchpits, and connections to permeable areas are clearly shown on plan.
11. Please provide invert levels and cover levels of all inspection chambers, manholes, filter drains, etc. Please also ensure that finish and formation level of permeable paving is clearly provided on plan.

Comments Regarding condition 10- discharge of flows to watercourse

It would not be appropriate to approve condition 10 whilst the surface water drainage design is still being revised.

Comments Regarding condition 11- SuDS maintenance manual

It would not be appropriate to review the adequacy of the maintenance manual whilst the surface water drainage design is still being revised. I will provide comments once the details of condition 9 are agreed.

Regards,

Laura Gibbons, MEng, GMICE
Engineer (Drainage & Coastal)

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Arun is Working in Partnership with Chichester District Council
Visit Arun's web site at <http://www.arun.gov.uk/> and www.chichester.gov.uk
 Save the environment - think before you print.

From: planning.responses@arun.gov.uk <planning.responses@arun.gov.uk>
Sent: 02 September 2019 11:06
To: Land Drainage <Land.Drainage@arun.gov.uk>
Subject: Planning Consultation on A/113/19/DOC

To: **Engineers (Drainage)**

NOTIFICATION FROM ARUN DISTRICT COUNCIL

TOWN AND COUNTRY PLANNING ACT 1990

APPLICATION NO: A/113/19/DOC

Registered: 22-AUG-19

Site Address: Crete Nursery Dappers Lane Angmering BN16 4EN

Description of Works: Approval of details reserved by condition imposed under ref A/178/17/OUT relating to Condition Nos 4 - external lighting, 5 - construction management plan, 6 - road safety audit, 7 - visibility splays, 8 - footway, 9 - proposed surface water drainage, 10 - discharge flows to watercourses, 11 - SuDs system and 13 - future access & management of any watercourse or culvert.

The Council have received the above application to discharge conditions. I shall be pleased to receive any observations you may wish to make in respect of those conditions relating to your field of expertise.

[Click here to view the Discharge of Condition application](#)

[Click here to view conditions on original application - click on decision tab](#)

Should you have any comments to make, these should be sent by replying to this email by 16th September 2019.

www.arun.gov.uk/planning

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.

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

The officer dealing with this application is Andrew Wood who can be contacted on telephone number 01903 737768.

Thanking you in anticipation

Planning Case Officer
Arun District Council

post_con_email
