

From: Amanda Scholes on behalf of Planning.Responses
Sent: 25 November 2020 12:56
To: Planning Scanning
Subject: FW: Y/113/20/DOC- Land South of Ford lane/East of north End Road Yapton

Amanda Scholes | Receptionist, Department, [Arun District Council](#) | Location: Ground Floor, Arun Civic Centre, Maltravers Road, Littlehampton, BN17 5LF

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Save the environment - think before you print.

From: Laura Gibbons <laura.gibbons@adur-worthing.gov.uk>
Sent: 24 November 2020 11:22
To: Planning.Responses <Planning.Responses@arun.gov.uk>
Cc: Michael Eastham <Michael.Eastham@arun.gov.uk>
Subject: Re: Y/113/20/DOC- Land South of Ford lane/East of north End Road Yapton

Michael,

Further to my earlier comments I have now reviewed the information contained within the appendices and have the following comments.

1. Half drain times exceed 24 hours for the 1 in 100 year plus 40% climate change event. Some calculations of lower return period events have been supplied for some areas, where it is demonstrated half drain times far exceed 24 hours, this is unacceptable. Please can lower return period event results be supplied for all designs, as a minimum it must be demonstrated that half drain times are less than 24 hours for the 1 in 10 year plus 40% climate change event.
2. A factor of safety of 2 has been applied to design. This is insufficient given the incompliant tests, as indicated previously by my colleague. The factors of safety shown below must be applied to design, e.g. 3, 4 or 6.5 depending upon area drained.

Size of Area to be Drained	Factor of Safety Table					
	Consequences of failure					
	No damage or inconvenience		Minor inconvenience, e.g. surface water on car park		Damage to buildings or structures or roads.	
	Cv=1.0	Cv=0.75	Cv=1.0	Cv=0.75	Cv=1.0	Cv=0.75
<100 m ²	1.5	2	2	3	10	13
100m ² to 1000m ²	1.5	2	3	4	10	13
>1000m ²	1.5	2	5	6.5	10	13

3. Infiltration is proposed in some areas where infiltration rates obtained were less than $1 \times 10^{-6} \text{m/s}$, such rates are usually deemed unacceptable for infiltration. Water from these areas should be directed to areas with better infiltration potential, or as an absolute minimum linkages to the better areas must be provided.
4. It must be demonstrated that the invert level of incoming pipes to soakaways are above the 1 in 10 year plus climate change event level.
5. Cover levels of features must be provided on layout plans.
6. Permeable membranes around crates must be clearly shown on construction details.
7. Two perpendicular cross sections must be provided of the basin.
8. Cross sections of the swales should be provided.

As indicated by my colleague previously we believe that an infiltration only solution is very difficult to achieve here given the infiltration rates found, it may be that a hybrid solution is required.

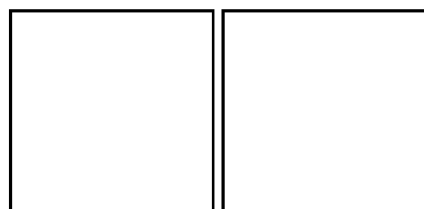
Kind regards,

Laura Gibbons

Engineer, Adur & Worthing Councils



Address: Facilities & Technical Services, Worthing Town Hall, Chapel Road, Worthing, West Sussex, BN11 1HA



On Tue, 24 Nov 2020 at 10:47, Tilly Whishaw  wrote:

Michael,

Please find the drainage statement including appendices attached. This has been sent to the Council (once with submission, with an updated document following on), however due to its size it was sent via we transfer.

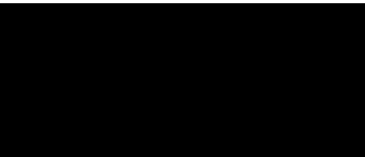
The appendices should provide you with the information requested within Laura's email.

Kind regards,

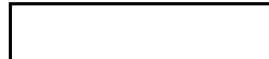
Tilly

Tilly Whishaw
Planner

Redrow Homes Limited
Redrow House Unit 1 Paraday Office Park
Rankine Road, Basingstoke
Hampshire, RG24 8QB



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From: Michael Eastham <Michael.Eastham@arun.gov.uk>

Sent: 24 November 2020 10:35

To: Tilly Whishaw [REDACTED]; Craige Burden [REDACTED]

Cc: David Hutchison [REDACTED]; Rob Riding [REDACTED]

Subject: FW: Y/113/20/DOC- Land South of Ford lane/East of north End Road Yapton

=====
THIS EMAIL ORIGINATED FROM AN EXTERNAL SOURCE.
CHECK THE EMAIL ADDRESS, AS IT MAY BE SPAM!
=====

Craige and Tilly,

Please see the email below from ADC Drainage Engineers to discharge of condition application **Y/113/20/DOC** relating to Land South of Ford lane/East of north End Road Yapton.

I look forward to receiving your reply.

Kind regards,

Michael

Michael Eastham

Principal Planning Officer,

Planning Department



T: 01903 737772

E: michael.eastham@arun.gov.uk

Arun District Council, Civic Centre, Maltravers Rd, Littlehampton, West Sussex, BN17 5LF
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From: Laura Gibbons <Laura.Gibbons@arun.gov.uk>
Sent: 24 November 2020 10:31
To: Planning.Responses <Planning.Responses@arun.gov.uk>
Cc: Michael Eastham <Michael.Eastham@arun.gov.uk>
Subject: Y/113/20/DOC- Land South of Ford lane/East of north End Road Yapton

Drainage Engineers Comments Regarding Condition 11

We do not recommend discharge of this condition at this time.

The appendices to the drainage statement have not been supplied/ are not on the system. Please can all of the information stated to be included within the appendices be provided.

For example, we are missing the following information:

1. Surface water drainage design calculations. Please note that as indicated previously we will need robust factors of safety to be applied to design as infiltration testing was not completed in accordance with BRE365.
2. Exceedance flow drawings.
3. Construction detail drawings.

It should also be noted that layout drawings must clearly show finish and formation level of proposed permeable paving, and invert and cover level of all other surface water drainage features.

Please re-consult us once this information has been provided so that we can complete a detailed review.

Kind regards,

Laura Gibbons

Drainage Engineer

Engineering Services

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



T: 01903 221374

E: laura.gibbons@arun.gov.uk

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