

From: [Grant, David](#)
To: [_planningadvice](#)
Subject: FW: Poplar Farm Estates H03-0681-21
Date: 07 December 2021 11:39:55
Attachments: [image001.png](#)
[image003.png](#)
[We sent you safe versions of your files.msg](#)
[SW21-134-The Plough, Soakaway with 2.0 FOS.pdf](#)

Please add this email and attachment to the DIP under 6SUP – Soakaway sizing calculation.

Many thanks,

David Grant | Senior Planning Officer | **South Holland District Council**

Direct Dial: 01775 764472

www.sholland.gov.uk

Please note that any informal officer opinion expressed by this email is without prejudice and is not binding on the Council during the consideration of any formal application.



served by One Team

From: Keshiv Sudera <ksudera@ds-a.co.uk>
Sent: 02 December 2021 14:26
To: Grant, David <dgrant@sholland.gov.uk>
Cc: James Goodall <jgoodall@ds-a.co.uk>
Subject: RE: Poplar Farm Estates H03-0681-21

Mimecast Attachment Protection has deemed this file to be safe, but always exercise caution when opening files.

This message originated from outside your organization

Hi David

See response below/attached from the engineer.

The sub-base specified is in line with the Interpave design guidance for concrete block paviour permeable systems, and is a stone specification which will provide good drainage characteristics and the ability store water in its voids. It is similar in nature to a type 3 specification.

The interpave design guidance recommends a min. of 140mm depth of this sub-base material for a surface on a site with this type of low infiltration rate.

As can be seen we have specified a min of 350mm build up under the drive and 200mm under parking spaces which will provided additional storage over and above that required by the 1 in 100 year storm plus climate change.

Infiltration rate = 1×10^{-6} m/s

		1 in 10	1 in 30	1 in 100	1 in 100 + 20%	1 in 100 + 30%
M5-60	r	10	3.33	1	0.5	0.25
20	0.4	50	70	95	125	140
	0.3	50	70	100	130	145
	0.2	50	70	105	140	160
17	0.4	50	50	75	100	110
	0.3	50	50	75	100	115
	0.2	50	50	80	110	125
14	0.4					
	0.3	50	50	60	80	85
	0.2	50	50	55	75	90

extract

of Interpave design guide Table 10.

Whilst BRE 365 does recommend 3 test pit refills, this is generally impractical in the south Lincs and fenland area, due to the average infiltration rates being in the region of 5×10^{-6} . We have been undertaking test in this manner in this area for many years and this test manner has always been accepted as reasonable in the past. We have never encountered issues with Garden soakaways sized using infiltration rates calculated using this test manner.

This site has yielded a test result in line with what we would anticipate being an average for this area.

Whilst the infiltration rates achieved were very low, the underlying strata on the site were of a granular nature and Ground water has not been encountered during any investigations or explorations on the site.

We would also note that the surrounding existing properties are all drained via garden soakaways with no public surface water sewer system in the village.

As such we are satisfied that the garden soakaways will provide a suitable method of drainage for the site.

Should it be necessary to allay any concerns we can increase the garden soakaway sizes to provide an additional layer of robustness and factor of safety. I have attached a calculation using an infiltration rate with a factor of safety of 2 and a 5x3 crate soakaway.

We trust the above and attached will satisfy the query. I am happy to discuss with David grant if needed, as he should be determining this himself really as this is a minor application it does not need to be reviewed by the LLFA/SUDS team.

Kind regards,

Adam Wilson CEng MIStructE
Director, Chartered Structural Engineer

Kind Regards,

Keshiv Sudera

Managing Director

Bsc (Hons) BArch (Hons) PG (Dip) RIBA

From: james@eacivils.co.uk <james@eacivils.co.uk>

Sent: 01 December 2021 16:49

To: Keshiv Sudera <ksudera@ds-a.co.uk>

Cc: James Goodall <jgoodall@ds-a.co.uk>; 'Salim Kapasi' <salim@redefinelifing.co.uk>

Subject: RE: Poplar Farm Estates H03-0681-21

Hi Kesh,

Please see response from our engineer

Kind Regards

James Doolan

Tel: +44 (0) 7507 692205

E: james@eacivils.co.uk

W: www.eacivils.co.uk

A: 1-4 London Road, Spalding, Lincs PE11 2TA

United Kingdom



From: Keshiv Sudera <ksudera@ds-a.co.uk>

Sent: 01 December 2021 12:53

To: james@eacivils.co.uk

Cc: James Goodall <jgoodall@ds-a.co.uk>; Salim Kapasi <salim@redefinelifing.co.uk>

Subject: FW: Poplar Farm Estates H03-0681-21

Hi James.

Please see email below received in relation to Poplar Farm.

Also, to confirm planning has been submitted.

Kind Regards,

Keshiv Sudera

Managing Director

Bsc (Hons) BArch (Hons) PG (Dip) RIBA

From: Grant, David <dgrant@sholland.gov.uk>

Sent: 24 November 2021 16:06

To: Keshiv Sudera <ksudera@ds-a.co.uk>

Subject: FW: Poplar Farm Estates H03-0681-21

Dear Tsvetan,

Please see the below response from the County Highways & SUDS Officer, Jon Sharpe.

In this scenario it is considered to be appropriate to undertake 3 successive fills. The second and third fills would be slower than the first so infiltration may not actually be a viable method.

Kind regards,

David Grant | Senior Planning Officer | **South Holland District Council**

Direct Dial: 01775 764472

www.sholland.gov.uk

Please note that any informal officer opinion expressed by this email is without prejudice and is not binding on the Council during the consideration of any formal application.



From: Jon Sharpe <Jon.Sharpe@lincolnshire.gov.uk>

Sent: 24 November 2021 15:07

To: Grant, David <dgrant@sholland.gov.uk>; HighwaysSUDsSupport <HighwaysSUDsSupport@lincolnshire.gov.uk>

Subject: RE: Poplar Farm Estates H03-0681-21

This message originated from outside your organization

Apologies David.

Applications and e-mails are coming in in such quantities that if they are not answered immediately, they are quickly buried.

In response to your consultation on the further information, I would reiterate that as a Minor

Application the drainage details are for the Local Planning Authority to consider.
I suggest that in terms of the specification and grading of the material to be used for the sub-base of the permeable roads, the appointed contractor would be advised to have regard to the information provided in the LCC Development Road Specification;

<https://www.lincolnshire.gov.uk/downloads/file/2039/development-road-specification-may-2018-current-edition-pdf>

A Type 3 material should be used.

The submitted soakaway tests appear to be based upon just one fill of the trial hole whereas the BRE Digest 365 recommendation is that there should be three successive fills, to simulate longer periods of rainfall.

Also, the infiltration rates that have been calculated are very low.

Jon.

From: Grant, David [<mailto:dgrant@sholland.gov.uk>]

Sent: 24 November 2021 09:22

To: HighwaysSUDsSupport; Jon Sharpe

Subject: Poplar Farm Estates H03-0681-21

Hi Jon,

I hope all is well with you.

A consultation email was sent out to you on the 20th of October 2021 with regard to driveway and infiltration details. Please let me know, at your earliest convenience, if and when you intend to respond.

Kind regards,

David Grant | Senior Planning Officer | **South Holland District Council**

Direct Dial: 01775 764472

www.sholland.gov.uk

Please note that any informal officer opinion expressed by this email is without prejudice and is not binding on the Council during the consideration of any formal application.



served by One Team

The information contained in this email is confidential and intended only for the person or organisation to which it is addressed. If you have received it by mistake, please disregard and notify the sender immediately. Unauthorised disclosure or use of such information may be a breach of legislation or confidentiality and the content may be legally privileged.

Any improper dissemination, forwarding, printing, or copying of this email is strictly prohibited. Emails sent from and received by employees of South Holland District Council may be monitored. They may also be disclosed to other people under legislation, particularly the Freedom of Information Act 2000, GDPR, the Data Protection Act 2018 and the Environmental Information Regulations 2004. If you have contacted the Council for a service any personal data you share will be used to help you access its services, or to answer your enquiry in line with our Privacy Policy. For full details of your rights please

visit our website at www.sholland.gov.uk. Unless this email relates to South Holland District Council business it will be regarded by the Council as personal and will not be authorised by or sent on behalf of the Council.

Note: We are a Microsoft Office site. Our base version is 2010. Please make sure that files you send can be read in this format. Any form of reproduction, dissemination, copying, disclosure, modification, distribution and/or publication of this e-mail is strictly prohibited save unless expressly authorised by the sender. The information contained in this message is intended for the named recipients only. It may contain privileged and confidential information and if you are not the addressee or the person responsible for delivering this to the addressee, you may not copy, distribute or take action in reliance on it. If you have received this message in error, please notify the sender(s) immediately by telephone. Please also destroy and delete as soon as possible the message from your computer.

The information contained in this email is confidential and intended only for the person or organisation to which it is addressed. If you have received it by mistake, please disregard and notify the sender immediately. Unauthorised disclosure or use of such information may be a breach of legislation or confidentiality and the content may be legally privileged. Any improper dissemination, forwarding, printing, or copying of this email is strictly prohibited. Emails sent from and received by employees of South Holland District Council may be monitored. They may also be disclosed to other people under legislation, particularly the Freedom of Information Act 2000, GDPR, the Data Protection Act 2018 and the Environmental Information Regulations 2004. If you have contacted the Council for a service any personal data you share will be used to help you access its services, or to answer your enquiry in line with our Privacy Policy. For full details of your rights please visit our website at www.sholland.gov.uk. Unless this email relates to South Holland District Council business it will be regarded by the Council as personal and will not be authorised by or sent on behalf of the Council.



Virus-free. www.avg.com

Job Details SW21-134 - Residential Development, The Plough, Deeping st Nic.

Title Soakaway sizing calculation

Calculated Infiltration Rate (m/s)
0.000003

Design Rainfall - R	
M5-240	Z1
0.02	1.48
M10-D	Z2
0.0296	1.24

R = 0.036704 m

Inflow To Soakaway

Area (m ²)	x	R
54		0.036704

Inflow = 1.982016 m³

Outflow From Soakaway

Internal SA (50%)	Infiltration Rate	Storm Duration (s)	
9.7	0.000003	60	3600

Outflow = 0.10476 m³

Storage Required

Inflow -	Outflow	
1.982016	0.10476	1.877256

Storage Volume With 30% Free (Required)
2.4404328

Actual Storage Volume
2.85

Soakaway Dimensions

Polystorm crates	Number	Total Lengths	Half Effective
Width	0.5	5	2.5
Length	1	3	3
Depth	0.4	1	0.4

Internal Surface Area Not Including Base (50% depth)
9.7 m²

Storage Volume(95% voids)
2.85 m³

Soakaway Has Been Designed For A
10 Year Storm Of 240 Minute Duration

Half drain time = 9.5 OK

NB. Actual Storage Volume Needs To Be
Greater Than Storage Volume + 30%