

From: Anita Gardner
Sent: 05 December 2019 09:50
To: Shivani Bhardwaj [REDACTED]
Subject: RE: Pound Place - Report ref R18-12844 A/161/19/DOC

Dear Shivani,
I have now received a response from the Drainage Engineer she has stated:

“Indeed I was confused. Thank you to Shivani for clarifying some of the points. I see the tests were completed in general accordance with BRE 365. It seems there has been a difference in interpretation of how much water should be used and where you measure 75-25% on. This has highlighted deficiencies within the council model that we were not aware of.

On this basis, and on the advice of Paul Cann (Senior Drainage Engineer) I have reassessed the application with more leniency.

I am going to describe my findings below, (none of the soakaways have cover levels on the drawings so I have used the cover levels of the closest silt traps).

Soakaway CS1

I have assumed that the closest trial pit is TP01.

Cover Level of Soakaway:	14.50m	
Top of the Tank:	13.75m	0.75mbgl
Invert Level (Base of Soakaway):	12.55m	1.95mbgl
TP01 Depth:		2.8mbgl
TP01 Fill Depths:		0.96mbgl (Test 3), 1.1mbgl (Test 2) 1.9mbgl (Test 1)

Samples and In Situ Testing show that very gravelly stratum starts at 1.2mbgl and continues down to 2.8mbgl.

Soakaway CS4

I have assumed that the closest trial pit is TP01.

Cover Level of Soakaway:	14.70m	
Top of the Tank:	12.67m	2.03mbgl
Invert Level (Base of Soakaway):	11.87m	2.8mbgl
TP01 Depth:		2.8mbgl
TP01 Fill Depths:		1.9mbgl (Test 1), 1.1mbgl (Test 2), 0.96bgl (Test 3)

Samples and In Situ Testing show that very gravelly stratum starts at 1.2mbgl and continues down to 2.8mbgl.

Soakaway CS2

I have assumed that the closest trial pit is TP03.

Cover Level of Soakaway:	14.65m	
Top of the Tank:	13.40m	1.25mbgl
Invert Level (Base of Soakaway):	12.20m	2.45mbgl
TP01 Depth:		0.9mbgl
TP01 Fill Depths:		0.5bgl (Test 1), 0.54mbgl (Test 2) 0.51mbgl (Test 3)

Samples and In Situ Testing show that slightly gravelly stratum starts at 0.35mbgl however there is no samples below 0.9mbgl.

Soakaway CS3

I have assumed that the closest trial pit is TP03.

Cover Level of Soakaway:	14.74m	
Top of the Tank:	13.80m	0.94bgl
Invert Level (Base of Soakaway):	12.20m	2.54bgl
TP01 Depth:		0.9mbgl
TP01 Fill Depths:		0.5bgl (Test 1), 0.54mbgl (Test 2) 0.51mbgl (Test 3)

Samples and In Situ Testing show that slightly gravelly stratum starts at 0.35mbgl however there is no samples below 0.9mbgl. In addition this soakaway is closer to WS05 which exhibited very stiff clay down to a depth of 1.8mbgl.

On the basis of the information above I think it is clear that there are areas which are acceptable and others that need more investigation. I am happy that no further tests are required on the east of the site. Whilst the TP01 was at a greater depth than the proposed soakaway and not filled to the assumed invert level of the incoming pipe to the proposed soakaway, I am happy that the samples and testing show a similar enough stratum to be able to use the results.

However, I am concerned that the depth of the infiltration test on the west of the site does not reflect the depth of the soakaways proposed there. As previously stated the pit dimensions here were also undersized (0.3m x 0.3m). Nor is there sufficient samples and in situ testing to justify an assumption on the deeper ground conditions. Indeed WS05 (which is in proximity to CS3) exhibits very stiff clay which could affect infiltration rates.

It is suggested that the applicant completes a repeat of the infiltration tests to correspond with the locations and depths of CS3 and CS4. If they only wish to complete one trial pit it will be acceptable for them to locate this at the location of CS3 to a depth of 2.5mbgl, as the infiltration rate is likely to be slower due to the expected presence of clay."

I would therefore suggest that the application is resubmitted with this additional information

With regards to varying the condition to be pre-commencement I would advise the preference from Engineers is that it remains as such. The reason for the condition being pre-commencement was quite clear. However, If you wish to make an application with clear justification for the request it will be considered on its own merits.

I trust this information is of assistance

Regards

Anita



From: Shivani Bhardwaj <shivani.bhardwaj@savista.co.uk>

Sent: 04 December 2019 12:13

To: Anita Gardner <Anita.Gardner@arun.gov.uk>

Cc: Tom Wilson (tomwilson@iesisgroup.com) <tomwilson@iesisgroup.com>; James Rowntree <James.Rowntree@savista.co.uk>

Subject: RE: Pound Place - Report ref R18-12844 A/161/19/DOC

Anita,

Thank you for your refusal note yesterday, but I am concerned by the response from Sarah Burrows, as I think she is confusing some aspects of the report submitted.

On the 1st November 2019 I forwarded the soil investigation report R18 – 12844 to the planning portal at 11.33am, (further copy attached). Within that report under section 8.7, which deals with infiltration, it is quite clear that there were 3 trial pits dug, in addition to two boreholes. The 3 trial pits were tested in accordance with BRE 365 (as noted under note 16), and were tested three times detailing the fall between 75% and 25% as required by the BRE testing regime. The two boreholes were also tested with 25 litres of water as additional tests, (under Kent County Council standards as noted in note 17), but these were in addition to the BRE tests.

It appears that Sarah has confused the bore hole tests with the trial pits testing and, as she admits, has looked no further within the report.

I would be grateful if you could ask her to consider the report in its entirety, taking into account the above, and determine whether there are still deficiencies in the results as she states.

In the meantime, as she categorically states that infiltration will not be a problem in the area, I would be grateful if you would refer to the condition as a clearance required before works above DPC rather than a pre start, particularly as there appears to be some confusion on the part of the Council rather than a deficiency in the reports that we have submitted.

I look forward to hearing from you as soon as you are able.

Kind regards



SHIVANI BHARDWAJ
Technical Coordinator

8 Woodbrook Crescent, Radford Way
Billericay, Essex CM12 0EQ



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From: Anita Gardner <Anita.Gardner@arun.gov.uk>

Sent: 02 December 2019 10:39

To: Shivani Bhardwa [REDACTED]

Subject: FW: Pound Place - Report ref R18-12844 A/161/19/DOC

Dear Shivani,

On the basis of the Drainage Engineer's comments below the application will be written up for refusal and a decision issued by the end of this week. I cannot agree to await receipt of further information since additional details have already been provided following receipt of the original application.

Regards

Anita Gardner

[Anita Gardner](#) | Principal Planner, Directorate of Place, [Arun District Council](#) | Location: First Floor, Arun Civic Centre, Maltravers Road, Littlehampton, BN17 5LF

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Save the environment - think before you print.

From: Sarah Burrow <Sarah.Burrow@arun.gov.uk>

Sent: 02 December 2019 09:31

To: Anita Gardner <Anita.Gardner@arun.gov.uk>

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

Subject: RE: Pound Place - Report ref R18-12844

Hi Anita,

I've started to look at the information submitted and have stumbled at the first hurdle. The infiltration tests that have been used to inform the design are inadequate. In order to complete the soakaway test in accordance with BRE 365 the pit needs to be filled three times. I was unclear from the updated report submitted by IESIS as to the volume of water added to the pits and so have referred back to the Superseded Drainage Design Calculations submitted 1/11/2019. On page 7 of 18 of the Arc Engineers Drainage Design Strategy Report in paragraph 2.4.6 the infiltration tests are described. "The borehole tests showed that when some 25 litres of water was introduced into the boreholes (up to three times), the water drained away immediately."

The volume of the two pits used to calculate the infiltration rate which informs the design were 0.081m³ /81litres (TP03) and 2.565m³ / 2565litres.

I might add that the results from TP01 do seem to contradict this as the starting depth is listed at 0.95m bgl.

My problem is that in order to calculate the infiltration rate the pit needs to be filled and the time from it falling to 75% to 25% filled is recorded. In none of these tests is the pit filled to 75% let alone 100%.

Furthermore the dimensions of TP03 are too small, BRE365 states that the trial pit should be 0.3-1m wide and 1-3m long. Therefore the smallest dimensions could be 0.3m-1m rather than 0.3m x 0.3m.

I appreciate that the ground conditions on Roundstone Lane will show excellent potential for infiltration and have no concerns about the viability of infiltration on the site. However, the applicant will need to complete further tests in accordance with BRE365 at the depths and locations of the proposed soakaways in order to calculate an accurate infiltration rate which can then be used to inform the design.

At this stage I have not looked further into the details submitted. I am sure you are aware that the department is stretched at present and I don't want to waste time assessing an application that is likely to need adjustment based on the new data and infiltration rates.

Kind Regards

Sarah Burrow
Engineering Assistant

From: Anita Gardner <Anita.Gardner@arun.gov.uk>
Sent: 26 November 2019 14:08
To: Sarah Burrow <Sarah.Burrow@arun.gov.uk>
Subject: FW: Pound Place - Report ref R18-12844

Hi Sarah,
I attach the revised calculations and report. Can I have your comments please when you have time?
Thanks
Anita

Anita Gardner | Principal Planner, Directorate of Place, Arun District Council | Location: First Floor, Arun Civic Centre, Maltravers Road, Littlehampton, BN17 5LF

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From: Paul Lavery [REDACTED]
Sent: 26 November 2019 13:51
To: Anita Gardner <Anita.Gardner@arun.gov.uk>
Cc: Tom Wilson <[REDACTED]>
Subject: Re: Pound Place - Report ref R18-12844

Dear Anita,

Please find attached our revised drainage calculations and report as discussed on Friday (see above email chain) regarding Pound Place (Planning Consultation ref A/161/19/DOC).

If there are any questions or if you would like to discuss anything, please feel free to contact myself.

Kind regards,

PAUL LAVERTY | Civil Engineer
HND