

From: Amanda Scholes on behalf of Planning.Responses
Sent: 25 January 2021 08:25
To: Planning Scanning
Subject: FW: Y/142/20/DOC

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From: Sarah Burrow <Sarah.Burrow@arun.gov.uk>
Sent: 22 January 2021 16:43
To: Maria Tomalova <Maria.Tomalova@arun.gov.uk>
Cc: Planning.Responses <Planning.Responses@arun.gov.uk>; [REDACTED]
Subject: RE: Y/142/20/DOC

Following on from my consultation below, I have just received instruction from the Principle Drainage Engineer that he expects all three infiltration test locations to be repeated in winter conditions. Please note this and amend my consultation to:

Engineers Comments Regarding Surface Water Drainage

At this stage it is not possible to recommend that conditions 10 or 11 imposed under Y/121/19/PL are discharged. I have the following comments that require addressing before I can recommend discharging the conditions:

Condition 10

1. No winter groundwater monitoring data has been supplied. For proposed sites of 10 or more this is expected to be from October to March inclusive and MUST capture the peak groundwater level. Winter groundwater monitoring is an explicit stipulation of the condition and it is not possible to recommend the discharge of the condition without it.
2. The infiltration testing that has been supplied was undertaken in autumn (early November). Again, it is a stipulation of the condition that this testing is undertaken in winter (defined by the met office as December to February inclusive). I would also like clarification regarding how the tests were completed, specifically with regards to the piping of the water to fill the pits, common practice would be to use a bowser or to empty a pre-filled receptacle into the pit to fill it quickly enough to accurately measure the infiltration rate, please elaborate on the method. It is also surprising and unexpected to see the infiltration rates improve over the course of the tests.

It is worth noting that on the immediately neighbouring site (Stakers Farm – Y/72/20/RES) infiltration rates in winter were found to be between 2.3×10^{-6} m/s to unmeasurable. Their closest test pit had a rate of 1.6×10^{-6} m/s (MAR-TP6). These are unfactored rates. In addition groundwater levels were found to vary considerably with the topographical levels on the site, in some places just short of 0.6mbgl.

On the basis of the above, it is recommend that further infiltration testing is completed now, to capture the infiltration rate in the correct period. This needs to be repeated for all three test pit locations, please ensure that the testing is no deeper than 0.6mbgl, assuming groundwater is evidenced below this level.

3. The calculations do not use the slowest infiltration rate for the site of 2.97×10^{-6} m/s (SA203). These will need to be adjusted irrespective of the outcome of points 2 and 3.

4. Please confirm that the calculations include the access road for the impermeable area. They state 'car park + driveway + roofs', the same is stated for the permeable car parking areas. Please supply an impermeable area plan as per the Drainage Checklist.
5. The calculations do not appear to include an allowance for urban creep (in line with [West Sussex Policy for Management of Surface Water](#) para5.6.4 and Table 5.2), please apply an allowance of 10% (based on a residential development density of 24.44 – using 11 homes in 0.45 hectare site). If this is included within the impermeable areas for the calculations please make this clear.
6. The calculations use a modified DG365 method to account for infiltration through the base. This is not appropriate, DG365 calculations are designed for infiltration systems where only the sides are utilised. Please use CIRIA R156 method for plane infiltrating systems.
7. Every indication based on the above, is that the design will not meet our half drain requirements (24 hours). Please ask the applicants engineer to consult with this department regarding resolving this issue.

Condition 11

1. This condition clearly stipulates that "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." Please include details of how maintenance of the system will be funded and who will be responsible for such maintenance. **If** management will fall to a management company then please also include detail of who will be responsible should that management company not fulfil their duties or not have adequate funds to do so. Please include funding of replacement components in line with the condition.

Kind Regards

Sarah Burrow

Engineering Assistant, Engineering Services

T: 01903 737815

E: sarah.burrow@arun.gov.uk

Whilst national restrictions are in place I will be working flexibly between the hours of 8am and 8pm. I appreciate your patience if I am slower than usual to respond. Equally I understand that you may be facing similar challenges and varying work patterns and will not be expecting immediate responses to my e-mails.

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

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From: Sarah Burrow

Sent: 22 January 2021 16:38

To: Maria Tomalova <Maria.Tomalova@arun.gov.uk>

Cc: Planning.Responses <Planning.Responses@arun.gov.uk>; 'Kerry@ss-p.co.uk' - [REDACTED]

Subject: RE: Y/142/20/DOC

Engineers Comments Regarding Surface Water Drainage

At this stage it is not possible to recommend that conditions 10 or 11 imposed under Y/121/19/PL are discharged. I have the following comments that require addressing before I can recommend discharging the conditions:

Condition 10

1. No winter groundwater monitoring data has been supplied. For proposed sites of 10 or more this is expected to be from October to March inclusive and MUST capture the peak groundwater level. Winter groundwater monitoring is an explicit stipulation of the condition and it is not possible to recommend the discharge of the condition without it.
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It is worth noting that on the immediately neighbouring site (Stakers Farm – Y/72/20/RES) infiltration rates in winter were found to be between $2.3 \times 10^{-6} \text{m/s}$ to unmeasurable. Their closest test pit had a rate of $1.6 \times 10^{-6} \text{m/s}$ (MAR-TP6). These are unfactored rates. In addition groundwater levels were found to vary considerably with the topographical levels on the site, in some places just short of 0.6mbgl.

On the basis of the above, it is recommend that further infiltration testing is completed now, to capture the infiltration rate in the correct period. This can be just one test pit in the location with the slowest rate (SA203 – $2.97 \times 10^{-6} \text{m/s}$) results can then be compared to the autumn testing. Please ensure that the testing is no deeper than 0.6mbgl, assuming groundwater is evidenced below this level.

3. The calculations do not use the slowest infiltration rate for the site of $2.97 \times 10^{-6} \text{m/s}$ (SA203). These will need to be adjusted irrespective of the outcome of points 2 and 3.
4. Please confirm that the calculations include the access road for the impermeable area. They state 'car park + driveway + roofs', the same is stated for the permeable car parking areas. Please supply an impermeable area plan as per the Drainage Checklist.
5. The calculations do not appear to include an allowance for urban creep (in line with West Sussex Policy for Management of Surface Water para5.6.4 and Table 5.2), please apply an allowance of 10% (based on a residential development density of 24.44 – using 11 homes in 0.45 hectare site). If this is included within the impermeable areas for the calculations please make this clear.
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Kind Regards

Sarah Burrow

Engineering Assistant, Engineering Services

T: 01903 737815

E: sarah.burrow@arun.gov.uk



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From: Maria Tomalova <Maria.Tomalova@arun.gov.uk>

Sent: 21 January 2021 12:57

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

Subject: FW: Y/142/20/DOC

These are what they provided.

[Maria Tomalova](#) | Senior Planning Officer, Directorate of Place, [Arun District Council](#) | Location: First Floor, Arun Civic Centre, Maltravers Road, Littlehampton, BN17 5LF

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From: Kerry Simmons <[REDACTED]>

Sent: 05 January 2021 13:15

To: Maria Tomalova <Maria.Tomalova@arun.gov.uk>

Subject: RE: Y/142/20/DOC

Hi Maria,

Thank you for the clarification. Please see attached the complete drainage strategy as requested. I trust this is sufficient to satisfy the requirement of the condition but do let me know if you require anything further.

Thanks,
Kerry

Kerry Simmons
Partner
[REDACTED]

15 West Pallant, Chichester, PO19 1TB

www.ss-p.co.uk

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From: Maria Tomalova <Maria.Tomalova@arun.gov.uk>
Sent: 23 December 2020 08:59
To: Kerry Simmons [REDACTED]
Subject: RE: Y/142/20/DOC

Dear Kerry,

It is there in my email.

Please can you contact applicant.....
It is everything what Sarah sent to me.

Kind regards

Maria

Maria Tomalova | Senior Planning Officer, Directorate of Place, Arun District Council | Location: First Floor, Arun Civic Centre,
Maltravers Road, Littlehampton, BN17 5LF
Internal: 37510 | External: +44 (0) 1903 737510 | E-mail: maria.tomalova@arun.gov.uk



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Save the environment - think before you print.

From: Kerry Simmons [REDACTED]
Sent: 23 December 2020 07:41
To: Maria Tomalova <Maria.Tomalova@arun.gov.uk>
Subject: RE: Y/142/20/DOC

Dear Maria,

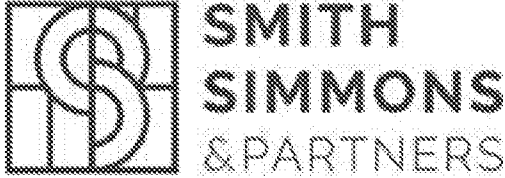
Thank you for your email, however it was missing the Drainage Engineers comments – please can you forward these on to me so that we can action the requested information.

Thanks,

Kerry

Kerry Simmons
Partner

15 West Pallant, Chichester, PO19 1TB
www.ss-p.co.uk



Visit our NEW website

From: Maria Tomalova <Maria.Tomalova@arun.gov.uk>
Sent: 22 December 2020 09:34
To: Kerry Simmons <[REDACTED]>
Subject: Y/142/20/DOC

Dear Mrs Simmons,

Please see below the message from our Drainage Engineers:

Please can you contact the applicant and ask them to provide a Drainage Layout, construction detail drawings and calculations to support their design. Without these documents it is not possible to review the submission. Full details of our requirements for a discharge of conditions application can be found in the Drainage Checklist: [Microsoft Word - Surface Water Drainage Proposals Checklist 201119.docx \(arun.gov.uk\)](#)

Kind regards

Maria

[Maria Tomalova](#) | Senior Planning Officer, Directorate of Place, [Arun District Council](#) | Location: First Floor, Arun Civic Centre, Maltravers Road, Littlehampton, BN17 5LF

Internal: 37510 | External: +44 (0) 1903 737510 | E-mail: maria.tomalova@arun.gov.uk



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