

From: Laura Gibbons <Laura.Gibbons@arun.gov.uk>

Sent: 11 May 2021 10:47

To: Amy Myer <Amy.Myer@arun.gov.uk>

Subject: RE: Y/43/21/DOC - Land East North End Rd/West of Church Lane - AMENDS REQUIRED

Hi Amy,

I have had a look over this latest information, and provided comments below. As you will see not all issues have been resolved at this time. It will usually take me a couple of weeks to get around to looking at new information due to the fact that I only work one day a week for Arun.

To be clear the drainage details were not recommended for approval by ourselves at earlier stages of planning. My colleague had numerous comments.

Key

ADC Comments 21/04/21

Applicants response 06/05/21

ADC further comments 11/05/21

Condition 7 – surface water drainage Drainage Engineers comments

1. Please can the applicant confirm the date of infiltration testing. **THURSDAY 14TH JANUARY 2021** *Okay, thank you, this is suitable.*
2. Please submit results from winter groundwater monitoring. **SEE ATTACHED.** *Okay, thank you, this is suitable.*
3. Please supply an impermeable areas diagram which clearly shows the areas draining to each soakaway. **SEE ATTACHED** *Okay, thank you.*
4. Layout plans show gravel filled soakaways right up to property boundaries. Soakaways should be located at least 5m from buildings and 2.5m from property boundaries. **It's a phased site (Orchard Business Park). Therefore treated as one site in terms of site boundaries. Same principals of the**

Planning stage drainage strategy were followed. *I do not agree with this. Drainage must be considered within the red line boundary of an application only. We have no control over future land use. Minimum standard requirements for easements to soakaways must be met.*

5. It is not clear what factor of safety has been applied to design. **Design is to BRE so FOS of 1 applied.** *Given that infiltration testing was completed at only one location we would rather see a slight factor of safety, e.g. 2 applied, to account for variations in ground conditions which are likely. Please see further comments below on calculations.*
6. Please clearly label proposed soakaway dimensions on plan, i.e. invert level, depth, length, width, depth of cover above soakaway. It does not appear that calculated soakaway dimensions can be provided. **SEE UPDATED DRAWING** *This has not all been provided. Plans are still missing details on base of soakaway levels, and do not clearly provide details of depth of soakaways and available cover above soakaways.*
7. Please provide 1 in 10 year plus cc water levels and ensure that incoming invert levels to soakaways are above this level. **TO FOLLOW** *Awaited.*
8. Construction detail drawings of permeable paving need to detail geotextiles. **SEE UPDATED DRAWING** *Okay, thank you.*
9. Please provide a construction detail drawing of the proposed baffles in the permeable paving. **SEE UPDATED DRAWING** *This detail drawing appears to show a pipe at the base of the baffle, the pipe has no dimensions or details specified. However, its location at the base is likely to effectively make the baffle pointless. Please reconsider.*
10. A construction detail drawing of the proposed catchpits needs to be provided. **SEE UPDATED DRAWING** *Okay, thank you.*
11. *A void ratio of 40% has been used in calculations, please provide evidence that this void ratio is achievable in practice.*
12. *SO2A cannot be calculated as it has been, you cannot use the side length of this soakaway assuming it is a "hollow doughnut", there is insufficient gaps between the sides. Calculations should be based upon a rectangular soakaway 2.15x1.1m.*
13. *Please provide invert levels of connecting pipes between soakaways if these are to be retained.*
14. *Please reconsider the linkage of soakaways, calculations do not accurately represent this.*
15. *There is insufficient distance between the sections of SO6. Please re-evaluate design.*

Condition 8- maintenance and management of surface water drainage Drainage Engineers comments

Details of who will be completing maintenance must be provided. This should detail what areas will be the responsibility of a management company to maintain and what areas will be the responsibility of private residents to maintain. If any maintenance is to be completed by a management company the manual must make reference to how this maintenance will be funded. **UPDATED ATTACHED (SEE PARA 1.11 & 1.12)**

Please provide a plan which confirms which areas of the drainage are deemed to be shared, and therefore the responsibility of a management company.

Should you have any questions, please feel free to drop me a message, or give me a call on the number below.

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 or [REDACTED]

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