

Mr A Phipps
Alderberry Homes
Unit 2 Long Barn,
Wangfield Lane,
Curdridge,
Southampton SO32 2DA

Dear Andy

NEW DEVELOPEMNT - KNOWLE LANE, FAIROAK

Please find attached our comments relating to the above project addressing the drainage Officers comments:

- Could you provide more detail on the suds pond and swale?*

Please find attached to this email more detail on the pond and swales.

- The latest drainage assessment report states that there would be increased runoff volumes over the previous consented application for office development but that the existing design would have sufficient capacity to accommodate this increase without increasing peak flow into the nearby watercourse. This must be explained more clearly in an updated document specific for this application.*

We feel that this is clear in the report. The drainage crates under the site have a finite capacity. This was not fully utilised in the original scheme but now as the impermeable areas are slightly more it is fully utilised. In the original scheme the new roads and parking areas were constructed in impermeable surfacing which was drained into the underground crate system to provide the required storage. In the newer scheme more of the roads and parking areas are of permeable construction with storage provided within the subbase of the road, this provides the storage required. These volumes are proven on pages 11 and 13 of the report.

- The report cites calculations that incorporate 20% for climate change and 10% for urban creep, but EBC will require 40% additional capacity for climate change. An increase of 20% for climate change is no longer considered appropriate.*

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This is not the case if you review the Wallingford tool calculations on pages 9 and 10, there is a climate change allowance factor of 1.4 which accounts for the 40% climate change increase factor.

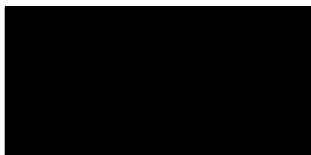
- *The report states that the proposed composite treatment train would be permeable pavement → swale/vertical filter bed → pond 1 → pond 2 then outfall to the watercourse on the northern boundary. This is not reflected in the proposed site layout, where only one SuDS basin is shown with no apparent connection to the watercourse on the northern boundary.*

The pond shown is split into 2 areas as you can see from the two set levels and the weir in-between, they are called pond 1 and 2. There is also a connection between the pond and the water course running from the Northern edge of the pond to the stream, it has an outlet weir level of 39.000m AOD, this is also noted on details drawing attached.

- *In accord with DM6, the drainage statement must use the simple index approach to compare the SuDS pollution index and the SuDS mitigation index (Ciria SuDS manual pages 568 and 569 tables 26.2 and 26.3) to demonstrate that sufficient water quality mitigation would be provided. This must include calculations for the roof drainage, parking areas, road areas, and the HGV turning area.*

These are included within the report please refer to page 10 for the impermeable area storage calculations. Page 11 for new roof areas, parking and roads and permeable car parking areas. Also page 13 for the permeable subbase car parking volume calculation.

Yours sincerely



ELVIN GOMERY B.Eng (Hons)
For and on behalf of Cowan Consultancy Ltd.

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