

From: Alfred Yeatman [REDACTED]
Sent: 25 August 2017 10:26
To: Simon Davis
Cc: Rachel Davies
Subject: RE: P/49/17/DOC Church Farm Holiday Village [NLP-DMS.FID263510]

Dear Simon

Following further work to the Church Farm drainage scheme we attach updated drawings and associated calculations.

In response to Paul Cann's comments:

- 1. All manholes on filter drain to contain silt traps. Additional manhole access required. Ie. on heads of each system/at all significant changes of direction/at intervals not exceeding 50m. **See amendments to drawings 3001 and 3002.***
- 2. Show link on plan from southern most permeable pavement to control chamber. **See amendment to drawing 3002.***
- 3. Investigate invert of southern outlet pipe where it discharges to the ditch, in order to provide as much distance as possible between ditch bed and pipe invert. Re-grading the ditch may be an option if the design cannot be adjusted. **Not possible to lower invert due to available falls on site. Therefore ditch to be re-graded to lower level – see note on drawing 3002.***
- 4. Specify levels/gradient of filter drain. **See levels on drawings 3001 and 3002.***
- 5. Show finished surface levels for access road/permeable paving. **See levels on drawings 3001 and 3002.***
- 6. Existing ditch may need to be cleaned out to ensure no impediment of flows (add note to drawing). **Note added see drawings 3001 and 3002.***
- 7. Provide calculations to prove that excess water can be stored above ground (within the raised kerb area) during the 1 in 100 year storm event +30% allowance for climate change. **System has now been altered to allow for underground storage of flows in 300mm deep Permavoid structure, see MicroDrainage calculations for details. Note North catchment details have also been amended.***
- 8. Provide construction detail drawings for the permeable pavements/flow control chambers/filter drain/filter drain manholes (silt traps)/headwalls/pipe inlet arrangement to permeable pavements/pipe bedding & pipe spec for outlet pipes/raised flood attenuation kerbing. **See drawing 3401 for details.***
- 9. Provide details of hydrobrakes (technical data sheets from manufacturer). **See details from manufacturer as attached.***

Can you please forward on to Paul for confirmation that the details are acceptable?

Regards

Alfie

**Alfred Yeatman
Planner**

Lichfields, 14 Regent's Wharf, All Saints Street, London N1 9RL



lichfields.uk

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