

10th September 2020

Odyssey House
Unit 3 Winchester Hill Business Park
Winchester Hill
Romsey
Southampton
SO51 7UT

FAO: Arek Kadlec

Dear Sirs,

Re: Stakers Farm, Yapton

Further to your recent email enquiry, we offer the following comments for your consideration.

Permavoid Cover Depth

Subject to a minimum CBR at formation of 5% or greater, a minimum cover of 260mm is acceptable based on the two road construction scenarios you describe in your email dated 03/09/2020 and summarised below.

- Road type 3 and 4 - 150mm thick Permavoid, overlaid with 330mm-340mm of 4/40 granular material, overlaid with 80mm asphalt concrete during construction stage and then asphalt concrete would be core drilled and finished with 50mm bedding and 80mm permeable block paving.
- Road type 2 - 235mm thick Permavoid, overlaid with 180mm of 4/40 granular material, overlaid with 80mm asphalt concrete during construction stage and then asphalt concrete would be core drilled and finished with 50mm bedding and 80mm permeable block paving.

Permavoid Diffuser Sizing

We propose the diffuser unit that discharges into the infiltration basin located in public open space (POS) to effectively manage a peak flow of 80l/s will have to be of a radial design (see attached sketch layout). This will have 6no. legs extending from a dissipation chamber. Calculations for performance are provided below.

It is proposed that the dissipation chamber will be Ø1200mm with a 300mm sump at IL = 5.720 and CL = 6.550. The chamber would be provided with Ø225mm spigots and a GRP open grating removable cover.

