

Memorandum

To: Spatial Planning	From : Engineering
c.c	Contact : David Stewart
c.c.	Ext : 7816
c.c	My Ref : DS/9/1/3
.	Your Ref : P/2017/1133
For the attention of:	Date : 9 th April 2018
Angharad Williams	

Subject: Land to the South of White Rock, Adjacent to Brixham Road, Aka Inglewood, Paignton

Further to the additional surface water drainage information that has been submitted in support of the above planning application, I would like to make the following comments:

1. The developer has identified that surface water drainage from this development will be dealt with using a number of different techniques including individual plot soakaways, communal soakaways, infiltration ponds, attenuation ponds, and a controlled discharge to a surface water sewer off the site.
2. A site specific flood risk assessment has been submitted in support of this planning application which includes plans showing the proposed drainage strategy for the development site.
3. A number of infiltration tests have been carried out across the site the majority of which have been carried out in accordance with BRE365.
4. Within the latest information hydraulic calculations have been included for a sample individual soakaway, a communal soakaway and infiltration ponds using the results of the infiltration testing. These calculations confirm that the outline drainage strategy proposed complies with the requirements of the Torbay Critical Drainage Area. It should be noted however that the details submitted to date are insufficient to confirm there is no risk of flooding to properties on the site or increased risk of flooding to adjacent properties or land for the critical 1 in 100 year storm event plus 40% for climate change.
5. As part of the detailed design for the development, the developer must undertake further infiltration testing. This infiltration testing must be undertaken in accordance with BRE365 at the proposed location of each soakaway, infiltration pond and permeable paving (a tolerance of 20m from the location of the feature will be acceptable provided the ground conditions are similar). In addition the infiltration testing must be carried out at the proposed invert level of the soakaways, infiltration ponds and at the formation level of the permeable paving (a tolerance of 100mm is acceptable). All details of these trial holes and infiltration testing must be submitted with the detailed design.

6. The soakaways and infiltration ponds together with the surface water drainage system discharging to the soakaways and infiltration ponds must be designed in order that there is no risk of flooding to buildings on the site and there is no increased risk of flooding to land or buildings off the site for the critical 1 in 100 year storm event plus 40% for climate change. Similarly any permeable paving must be designed to demonstrate that there is no flood risk on or off the site for the critical 1 in 100 year storm event plus 40% for climate change.
7. Where the infiltration testing has demonstrated that the use of infiltration drainage is not feasible the developer will be allowed to discharge to the surface water system at a controlled discharge rate. As Torbay is a Critical Drainage Area any surface water discharge rate from the site to the surface water sewer must be limited to the 1 in 10 year Greenfield run off rate from the proposed impermeable area of the development discharging to the surface water sewer system. The proposed surface water system including attenuation must be designed in order that there is no risk of flooding to properties on the site or increased risk of flooding to adjacent properties and land for the critical 1 in 100 year storm event plus 40% for climate change.

Based on the above I can confirm that the outline drainage strategy complies with the requirements of the Torbay Critical Drainage Area, however the developer must supply the additional infiltration testing and surface water drainage design showing that there is no risk of flooding to properties on the site or increased risk of flooding to properties adjacent to the site for the critical 1 in 100 year storm event plus 40% for climate change. The detailed drainage design must be submitted and approved prior to any construction works commencing on the site.

Should you have any questions regarding the above please do not hesitate to contact me