

The test results are presented in Appendix D.

Where shallow Made Ground is noted, roads and hardstanding constructed on the medium volume change potential Kimmeridge Clay Formation should be designed based on a CBR value of 3.0%. This is based on reference to Table C1 of TRL1132 and average construction conditions. Based on wet conditions a CBR of 2.5% should be adopted, with dry conditions a CBR of 3.5% being applicable.

The cohesive soils of the Kimmeridge Clay Formation are likely to be frost susceptible.

All formation levels for roads and hardstanding should be proof rolled to highlight any soft areas which should then be dug out and replaced with selected granular material compacted in thin layers to a suitable specification.

6.7 Surface Water Disposal

Falling head tests were undertaken within WS2 and WS10 at 2.00m bgl. WS2 was bottomed out within soils of the Kimmeridge Clay Formation comprising a silty clay and WS10 was bottomed out within soils of the Made Ground comprising a gravelly sandy silty clay.

Falling Head Test Results.					
Trial Hole/Depth of Trial Hole (m bgl)	Test	Initial Water Level (m bgl)	Final Water Level (m bgl)	Time taken (mins)	Infiltration Rate (m/s)
WS2/2.00m bgl	1	GL	0.54	480	1.19×10^{-6}
WS10/2.00m bgl	1	GL	0.65	60	9.66×10^{-6}

Given presence of groundwater seepage between 1.00m – 4.00m bgl and the cohesive nature of the soils of the Kimmeridge Clay Formation, soakaways unlikely to prove a satisfactory solution for the disposal of storm water.

The Kimmeridge Clay Formation is classified as Unproductive Strata. The site is not located within a Groundwater Source Protection Zone (SPZ) as classified in the Policy and Practice for the Protection of Groundwater.

The principles of sustainable urban drainage system (SUDS) should be applied to reduce the risk of flooding from surface water ponding.
