

APPLICATION NO. 2016/1122

DESCRIPTION Erection of 3 no. residential dwellings.

LOCATION 31 Roman Road, Kexbrough, Barnsley, S75 5DE

Drainage Proposal

By way of satisfying the condition the following proposal is made.

a) Full foul and surface water drainage details, including a scheme to reduce surface water run off by at least 30% and a programme of works for implementation.

Please see attached and below.

Regarding implementation:

Mains Connection/Backdrop/Deep Inspection Chamber/Inverts: To be specified in conjunction with Yorkshire Water and in place prior to other drainage works.

Surface: Soakaways and drain runs will be excavated and installed in a "capped off" state simultaneously with footings for buildings. Roofs will be installed simultaneously with gutters and downpipes and will be connected to the capped soakaways/drains on the same or consecutive days. Silt traps will be inspected and cleared prior to the development being occupied or brought into use. Drainage channel shall be installed prior or simultaneously with road surfacing.

Foul: Drain runs will be excavated and installed in a capped off state simultaneously with footings. These will be brought into use as required by trades and prior to occupation.

(b) Porosity tests are carried out in accordance with BRE 365, to demonstrate that the subsoil is suitable for soakaways;

Tests have been conducted in two locations within the site (see plan) which has not historically been developed or contaminated, topsoil gave way to sandy subsoil which progressed to sandstone/shale, there was no groundwater revealed despite the tests being conducted in winter. Test area 1 (S1) has a Soil Infiltration Rate (SIR) of 1.97×10^{-5} m/second and Test area 2 (S2) has a Soil Infiltration Rate of 1.31×10^{-5} . Therefore the site is suitable for the use of soakaways.

(c) Calculations based on the results of these porosity tests to prove that adequate land area is available for the construction of the soakaways.

Using a per property 125m^3 effective roof area (including garages) and the above SIR's it is calculated that a crate soakaway system of 3m^3 each would accommodate a 30 minute 10 year return scenario. These are feasible to be located in each back garden in a configuration that allows at least 2.5m distance from boundaries and 5m from any building at the locations

as seen on the plan. Each of the three systems will be sufficient to capture 100% of rainfall from each house and garage thereby mitigating 44% of potential run off from the site.

As can be seen on the plan, areas for soakaways within the shared area of the development that are sufficiently distant from boundaries, buildings and roadways to capture further run off are problematic and 44% will have been achieved with the above proposed soakaways already. It is suggested that a drainage channel discharging into the mains will suffice.