

SITE: Land at Cats, Leys Hill Road, Walford, Ross-on-Wye, Herefordshire HR9 5QU
TYPE: Planning Permission
DESCRIPTION: The demolition of all existing structures on the site, the permanent cessation of existing uses and the erection of five detached dwelling houses with associated garaging.
APPLICATION NO: 161689
GRID REFERENCE: OS 358664, 218820
APPLICANT: Mr Graham Mitchell
AGENT: Graham Frecknall
DATE OF THIS RESPONSE: 17th November 2016

Information added from a review of the Drainage Report received 3-11-16

Overall Comment

Surface water

The management of the additional hard standing drive way areas are not included within the drainage calculations. Discussions with the applicant regarding the removal of the hard standing and replacement with a permeable surface have been had, however no additional drawings or amended plans have been provided to confirm this.

There are references to porous paving and flagstone paving on the soakaway test plan but none of the drawings submitted identify the paving that is proposed.

Infiltration testing has only been undertaken on the lower section of the development, predominantly the proposed infiltration area for the foul system. No infiltration rates have been undertaken at the proposed surface water soakaway systems for each development.

A plan has been added showing the location of the surface water soakage tests. Noted that permeability tests were also carried out for the foul soakage field

We recommend that the following information is provided prior to the Council granting planning permission for this development, confirmation of permeable hard standing areas are to be used in place of the impermeable areas originally proposed, additional infiltration testing undertaken in accordance with BRE365 at the proposed soakaway areas for the dwellings.

We note the provision of test results to BRE 365, test results have been reviewed. However there is no information clarifying the groundwater depth identified during the test.

Plans showing the layout of permeable paving are required

However, should the Council be minded to grant planning permission, we recommend that the submission and approval of detailed proposals for the management of flood risk / disposal of foul water and surface water runoff from the development is included within any reserved matters associated with the permission / suitably worded planning conditions.

- Results of additional infiltration testing undertaken in accordance with BRE365;
Details of results are now clarified

- Confirmation of the proposed authority responsible for the adoption and maintenance of the proposed drainage systems.

We understand that the surface water drainage systems will be private

If the results of infiltration testing indicate that infiltration will not provide a feasible means of managing surface water runoff, an alternative drainage strategy must be submitted to the Council for review and approval. Best practice SUDS techniques should be considered and we promote the use of combined attenuation and infiltration features that maximise infiltration during smaller rainfall events.

The soakaways have been designed to accommodate rainwater from a 1 in 10 year storm. Whilst this complies with the Building Regulations, the dominant specification is Sewers for Adoption. Accordingly the soakaways need to be redesigned for a 1 in 30 year storm

The applicant has proposed installing a soakage trench parallel with the inclined road. If kerbs are not proposed then this may work adequately. However the proposed soakage trench would conflict with the proposed package treatment plant soakage fields. Further clarification regarding this issue is required.

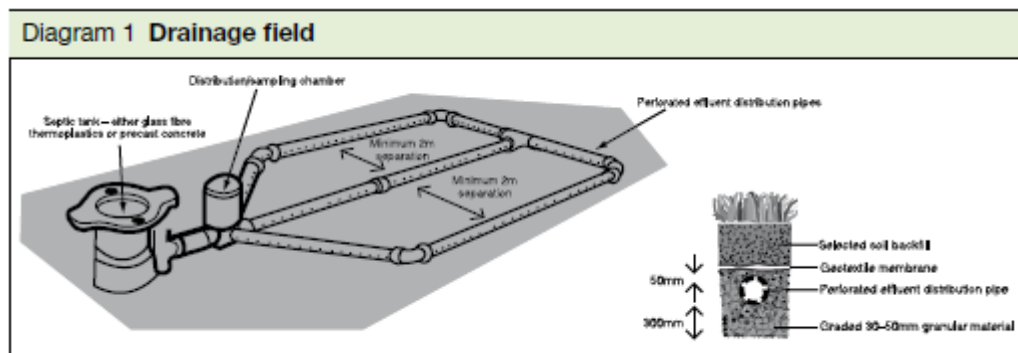
Foul Water Drainage

The applicant has proposed the use of package treatment systems to manage the sites foul water and presented percolation test results which demonstrate appropriate values for the purposes of foul water effluent discharge to ground

Each house is to be provided with its own sewage treatment plant with separate soakage fields installed on land most of which are south of the access road.

The site is steeply sloped, by inspection gradients across the proposed soakage field are approaching 1 in 5.

To allow circulation of the treated effluent, the pipework needs to be almost horizontal, with a maximum gradient of 1 in 200. The building regulations call for a minimum separation between diffusers of 2m.



The calculations demonstrate that in each case a soakage trench 95m is needed. Three trenches have been shown for each field. These have been shown parallel with the road, although the road is inclined. Consequently if the pipes are to be laid parallel with the road their depth will need to increase to ensure a near horizontal alignment for the field.

A cross section is needed to demonstrate typical details of the proposed alignment of the soakage fields alongside the road, including the offset from the road foundations. Given the slope of the site it is likely that the soakage pipe next to the road will be quite deep.

We note that a soakage field is proposed across two gardens. If this is positioned as shown, the land will need to be owned by the owner of the soakage field. Furthermore, the respective soakage pipes installed south of the road would need to be owned by the respective homeowners.

The cross section will need to demonstrate the level of the soakage pipe to the north of the road, to demonstrate that the pipes can be installed low enough to ensure that there is low risk of treated effluent emerging onto the road.

We note that the foul pipes have been inclined across the road to achieve a maximum gradient of 1 in 40, in compliance with the Building Regulations

The Applicant should also demonstrate compliance with the General Binding Rules and provide volumetric flow calculations in accordance with British Water guidance.

Overall comment

Before planning approval can be granted, the applicant needs to prevent cross section drawings to clarify :

- Where the proposed surface water highway drainage soakaway trench will be built
- The depth and alignment of the proposed treated effluent soakaway

Details of the level of the groundwater from the soakaway tests needs to be presented. If this was not identified in the test then a further deep test hole will be needed at the site of the proposed treated effluent soakaway and highway drain soakaway

Clarification of the location of permeable paving is also required