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Your Ref
BN/7/12
Our Ref
PLAN-000365
Date
30/05/2012

Dear Sir,

Proposal: Outline application with some matters reserved for up to 44 no. dwellings including 30% affordable, comprising of a mix of 2-4 bed houses with associated landscaping & works.

Site: Land north of Yapton Road & east of Garden Crescent, Barnham, PO22 0AR, BN/7/12

Thank you for your letter of 14/05/2012.

Following initial investigations, there is currently inadequate capacity in the local network to provide foul sewage disposal to service the proposed development. The proposed development would increase flows to the public sewerage system, and existing properties and land may be subject to a greater risk of flooding as a result. Additional off-site sewers, or improvements to existing sewers, will be required to provide sufficient capacity to service the development. Section 98 of the Water Industry Act 1991 provides a legal mechanism through which the appropriate infrastructure can be requested (by the developer) and provided to drain to a specific location.

Should this application receive planning approval, please include, as an informative to the permission, the following requirement:

"The applicant/developer should enter into a formal agreement with Southern Water to provide the necessary sewerage infrastructure required to service this development. Please contact Atkins Ltd, Anglo St James House, 39A Southgate Street, Winchester, SO23 9EH (Tel 01962 858688), or www.southernwater.co.uk".

There are no public surface water sewers in the immediate vicinity of the site. Alternative means of draining surface water from this development are required. This should not involve disposal to a public foul sewer.

The planning application form makes reference to drainage using Sustainable Urban Drainage Systems (SUDS).

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Under current legislation and guidance SUDS rely upon facilities which are not adoptable by sewerage undertakers. Therefore, the applicant will need to ensure that arrangements exist for the long term maintenance of the SUDS facilities. It is critical that the effectiveness of these systems is maintained in perpetuity. Good management will avoid flooding from the proposed surface water system, which may result in the inundation of the foul sewerage system.

Therefore, where a SUDS scheme is to be implemented, the drainage details submitted to the Local Planning Authority should:

- Specify the responsibilities of each party for the implementation of the SUDS scheme.
- Specify a timetable for implementation.
- Provide a management and maintenance plan for the lifetime of the development.

This should include the arrangements for adoption by any public authority or statutory undertaker and any other arrangements to secure the operation of the scheme throughout its lifetime. It is the responsibility of the developer to make suitable provision for the disposal of surface water. Part H3 of the Building Regulations prioritises the means of surface water disposal in the order:

- A. Adequate soakaway or infiltration system.
- B. Water course.
- C. Where neither of the above is practicable sewer.

Southern Water supports this stance and seeks through appropriate Planning Conditions to ensure that appropriate means of surface water disposal are proposed for each development. It is important that discharge to sewer occurs only where this is necessary and where adequate capacity exists to serve the development. When it is proposed to connect to a public sewer the prior approval of Southern Water is required.

Where soakaways are proposed, the means of disposal may not be appropriate for a number of reasons:

- Contamination of the existing site; where migration of contaminants to groundwater could be exacerbated.
- Potential contamination of the proposed discharge, eg oil/petrol from garage forecourts
- Ground conditions which preclude soakage.
- High seasonal water table, where soakaways may cease to operate or even work in reverse.
- Insufficient space to ensure that the soakaway is located more than 5 metres from the nearest building or utility plant.
- Insufficient depth to the water table to prevent contamination.

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It is important therefore that soakage tests are carried out at an early stage to confirm that adequate soakage is available to serve the proposed development and that the proposed soakaways are designed to appropriate standards, such as CIRIA Report 156 – Infiltration Drainage, Manual of Good Practice and BRE Digest 365 Soakaway Design. The use of SUDs and permeable pavements can contribute to pollution prevention.

We would recommend that the developer looks to protect the public sewerage system from inundation and infiltration, which contribute to flooding in unfavourable conditions. We would request that the following informative is included with any planning consent. "The applicant is advised to adopt, where appropriate, the measures in the table "Practical measures to reduce the potential impacts of development".


We request that should this application receive planning approval, the following condition is attached to the consent: "Construction of the development shall not commence until details of the proposed means of surface water disposal have been submitted to, and approved by, the Local Planning Authority in consultation with Southern Water."

Due to changes in legislation that came in to force on 1st October 2011 regarding the future ownership of sewers it is possible that a sewer now deemed to be public could be crossing the above property. Therefore, should any sewer be found during construction works, an investigation of the sewer will be required to ascertain its condition, the number of properties served, and potential means of access before any further works commence on site.

The applicant is advised to discuss the matter further with Atkins Ltd, Anglo St James House, 39A Southgate Street, Winchester, SO23 9EH (Tel 01962 858688).

Yours faithfully


David Nuttall
Senior Planning Engineer


E mail southernwaterplanning@atkinsglobal.com

Practical measures to reduce the potential adverse impacts of development

Reasons	Practical measures
Adequate and sustainable surface water drainage.	No surface water connections to the wastewater system. (See part H of the Building Regulations)
Guard against further groundwater infiltration into the foul drains or sewers serving the development.	<p>The use of fusion jointed MDPE pipes can prevent groundwater infiltration and require a minimum of maintenance.</p> <p>The use of mass concrete surrounds to inspection chambers and manholes can prevent infiltration and require a minimum of maintenance</p>
Guard against surface floodwaters entering the foul system serving the development.	<p>Overland surface water flow routes should be provided for flows greater than those for which pipelines and culverts have been designed.</p> <p>Wherever possible, foul sewer routes, manhole covers, sink waste gullies, etc. should avoid overland surface water flow routes and any areas where surface water ponding may occur. Failing that they should be sealed against potential surface water inflows.</p> <p>Any sink waste gullies in areas of potential surface water inundation should be sealed or defended by raised brickwork or similar.</p> <p>Bolt down sealed inspection chamber and manholes covers should be used in areas of potential surface water inundation.</p> <p>Raising the level of the development above the highways which serve it can protect buildings and their drainage systems from potential surface water inundation. However, care should be taken at local low spots in the highway where overland surface water flows may gather and overflow onto properties.</p>
Protect the properties from foul flooding or unusable sanitation should the public sewerage system surcharge.	Part H of the Building Regulations contains suitable practical measures. However, the provision of an external gully is inappropriate where there is a risk of surface water flooding. In these circumstances, non-return valves are more appropriate. Dirigo or similar non-return air valves are now commonly fitted to soil vent pipes thereby allowing them to allow them to vent within the building. This practice can lead to problems with bubbling WCs, the blow out of U bend traps and odour within buildings when the sewerage system surcharges. The use of traditional external vent pipes without air valves can prevent this.