



Hampshire County Council

Economy, Transport and Environment Department
Elizabeth II Court West, The Castle
Winchester, Hampshire SO23 8UD

Tel: 0300 555 1375 (General Enquiries)
0300 555 1388 (Roads and Transport)
0300 555 1389 (Recycling Waste & Planning)
Textphone 0300 555 1390
Fax 01962 847055
www.hants.gov.uk

Enquiries to	Vicki Westall	My reference	SWM/2019/0353
Direct Line	01962 846730	Your reference	APP/19/00427
Date	1 November 2019	Email	swm.consultee@hants.gov.uk

Dear Sir/Madam,

Re: Response 2 - 50 new dwellings together with access, landscaping and open space. at Land at Lower Road, Havant

Hampshire County Council as Lead Local Flood Authority has provided comments in relation to the above application in our role as statutory consultee on surface water drainage for major developments.

In order to assist applicants in providing the correct information to their Local Planning Authority for planning permission, Hampshire County Council has set out the information it requires to provide a substantive response at <https://www.hants.gov.uk/landplanningandenvironment/environment/flooding/planning>

The County Council has reviewed the following documents relating to the above application:

- (MJA Consulting) *Proposed Residential Development, Manor Farm, Bedhampton, Hampshire – Flood Risk Assessment & Development Drainage Strategy Rev B Sept. Ref: SS/19/0185/5992*
- (MJA Consulting) *Drainage Strategy Layout 5992:P01 Rev. B (23.09.19)*
- (MJA Consulting) *Level Strategy Layout 5992:P02 (Rev.)*
- (MJA Consulting) *Road and Sewer sections 5992:P10 (Rev.)*
- (MJA Consulting) *Surfacing Strategy Layout 5992:P05 (Rev. A)*
- *Ground Appraisal Report Manor Farm, Lower Road, Bedhampton, Hampshire PO9 3NB (08/11/2017) Reference: GE16507-GAR-NOV1, Version: 1.0*
- *Geo-Environmental Letter Ref: GE17736/GR03/19040 (01/04/2019) "Groundwater monitoring borehole BH102"*

Director of Economy, Transport and Environment
Stuart Jarvis BSc DipTP FCIHT MRTPI

In order for us to provide a substantive response, the following information is required:

- Please provide the attenuation volumes for the proposed drainage system.
 - The western pond has a storage volume shown within drawing 5992:P01 Rev. B, however no volume has been provided for the eastern pond, please provide this information.
- Evidence that the applicant understands the **sensitivity of discharge points** relating to the receiving water body.
 - Please provide confirmation of acceptability of the proposed infiltration system by the Environment Agency and its potential impact on aquifers in the area.
 - Provide zone of influence drawings/assessment to demonstrate there is sufficient space between the deep borehole soakaways and there is no detrimental effect on the infiltration rate due to the close proximity of the boreholes.
- Information evidencing that the **correct level of water treatment exists** in the system in accordance with the Ciria SuDS Manual C753.
 - In addition to the information submitted, please provide details of the treatment level provided by the "Multi-Stage Treatment Filter" from Hydro International including the CIRIA Simple Approach Index level provided by the unit.
- **Where infiltration is used for drainage**, evidence that a **suitable number of infiltration tests** have been completed. These need to be across the whole site; within different geologies and to a similar depth to the proposed infiltration devices. Tests must be completed according to the BRE 365 method or another recognised method including British Standard BS 5930: 2015 – In addition to the BRE365 infiltration tests provided please also provide testing demonstrating the suitability for the deep borehole infiltration. The Flood Risk Assessment & Development Drainage Strategy states "Falling head tests in boreholes circa 14-15m below ground level showed higher soakage rates of 1.4×10^{-4} m/s" has been obtained, likely due to fissures in the chalk." Please demonstrate how these rates have been derived.
- Provide data confirming the strata at the proposed infiltration depth.
- Provide an assessment demonstrating that deep boreholes are the only viable drainage outflow solution.
- The site is within a Major Aquifer High groundwater vulnerability zone. **Please provide** evidence to demonstrate that the design includes a minimum of 1m unsaturated depth of aquifer material between the

- infiltration surface and the maximum likely groundwater level (in accordance with Ciria SuDS Manual C753 requirements)
- Evidence that **enough storage/attenuation** has been provided without increasing the runoff rate or volume. This must be shown for a 1 in 100 year plus climate change event. As per comment above, please provide proposed attenuation storage volumes for both ponds in a drawing (currently only the volume for one of the ponds is provided).
 - Please provide MicroDrainage output showing what modelled pond volume has been used as this has not been shown within the current MicroDrainage output.
 - Provide unit type, and sizing for the Upflow unit and show it is sized adequately for the area it is draining.
 - Exceedance flows are considered in the event of the pipe being non-operational. Evidence that Exceedance flows and runoff in excess of design criteria have been considered - calculations and plans should be provided to show where above ground flooding might occur and where this would pool and flow. This should include flooding depths and volumes. Please provide a drawing showing exceedance flow routes and depths.
 - **Maintenance regimes** of the entire surface water drainage system including individual SuDS features, including a plan illustrating the organisation responsible for each element. **Evidence** that those responsible/adopting bodies are in discussion with the developer. For larger/phased sites, we need to see evidence of measures taken to protect and ensure continued operation of drainage features during construction.-
 - Some information has already been provided, please also provide details of who will maintain the system once it is built and in operation and details of the maintenance/inspection regime for the proposed deep borehole soakaway and the "Multi-Stage Treatment Filter" from Hydro International.
 - A penstock is now shown within the proposals. Due to the sensitivity of discharging to a deep borehole soakaway, please provide details of what the procedure would be to ensure an oil/contamination spillage is promptly dealt and the penstock shut-down mechanism activated to prevent any contamination from reaching the borehole.
 - The Maintenance Strategy makes reference to Buckinghamshire County Council, please ensure references are updated.
 - The 'Flood Risk Assessment & Development Drainage Strategy' report states "With reference to the Portsmouth Water flood register; there have been no recorded incidents of flooding from the existing foul or surface water sewers or potable water mains" please provide a copy of the Portsmouth Water/Southern Water response.
 - *Drawing 5992:P01 Rev. B shows the incoming swale entering the pond adjacent to the outfall into the reed bed, which could reduce treatment*

time at the pond. Consider moving the swale entry point away from the outfall into the reed bed system.

- *Please also confirm whether the western pond will have any flow restriction devices to ensure surface water has enough treatment time at the pond discharge prior to discharging to the reed bed system.*
- *Drawing "5992:P01 Rev. B" Drainage Strategy Layout shows a different layout for the proposed deep borehole soakaways than that shown within drawing "5992:P03 Rev." Please clarify which of the two is the correct layout and amend the other drawing.*
- *Provide a long-section showing the levels through the ponds.*
- *Please confirm whether the top layer of the infiltration borehole will be sealed and whether there is any screening in place to prevent entry of debris into the borehole soakaways.*
- *Please confirm how maintenance vehicles will be able to access the boreholes, ponds, Upflow filter, Reed Bed and penstock valve.*

We require this further information before we can make a decision on whether to recommend to the Local Planning Authority that planning permission is granted.

Please note that Hampshire County Council as Lead Local Flood Authority will not comment on the foul drainage proposals as this is outside our remit.

As a statutory consultee, the County Council has a duty to respond to consultations within **21 days**. The 21 day period will not begin until we have received sufficient information to enable us to provide a meaningful response.

This is our **second response** to this consultation. If the above listed material is not supplied in full, a third response will be issued recommending that planning permission be refused on the grounds of insufficient information.

Please ensure all further information is sent to us via the relevant Local Planning Authority.

For guidance on providing the correct information, we recommend you use our **Surface Water Management Pre-application service** which provides clear guidance on what is required for us to recommend that planning permission is granted and consider the works as best practise. For full details, please visit: <https://www.hants.gov.uk/landplanningandenvironment/environment/flooding/planning> and click on [pre-application advice request form](#).

This response has been provided using the best knowledge and information submitted as part of the planning application at the time of responding and is reliant on the accuracy of that information.

Yours faithfully,



Flood and Water Management Team
Economy, Transport & Environment Department,
Hampshire County Council, 1st Floor, Ell Court West,
The Castle, Winchester, Hampshire SO23 8UD
Web: <http://www3.hants.gov.uk/flooding/watercourses.htm>

General guidance for the application

It is important to ensure that the long-term maintenance and responsibility for Sustainable Drainage Systems is agreed between the Local Planning Authority and the applicant before planning permission is granted. This should involve discussions with those adopting and/or maintaining the proposed systems, which could include the Highway Authority, Planning Authority, Parish Councils, Water Companies and private management companies.

For SuDS systems to be adopted by Hampshire Highways it is recommended that you visit the website at:

<https://www.hants.gov.uk/transport/developers/constructionstandards> for guidance on which drainage features would be suitable for adoption.

Where the proposals are connecting to an existing drainage system it is likely that the authorities responsible for maintaining those systems will have their own design requirements. These requirements will need to be reviewed and agreed as part of any surface water drainage scheme.

Works in relation to ordinary watercourses

PLEASE NOTE: *If the proposals include works to an ordinary watercourse, under the Land drainage Act 1991, as amended by the Flood and Water Management Act 2010, prior consent from the Lead Local Flood Authority is required. **This consent is required as a separate permission to planning.***

Information on ordinary watercourse consenting can be found at the following link <http://www3.hants.gov.uk/flooding/hampshireflooding/watercourses.htm>

It is strongly recommended that this information is reviewed before Land Drainage consent application is made.

A Pre-application service for Ordinary Watercourse Consents is available, allowing consents to go through in a smoother, often more timely manner. For full information please visit:

<https://www.hants.gov.uk/landplanningandenvironment/environment/flooding/WatercoursePreApplication>