

Application address Land North of Barkby Road, Syston		Planning ref.	P/21/2639/2
		Our ref.	2021/2639/02/F/R1
Description Outline application for up to 195 dwellings with all matters reserved except access.		Consultation date	20/07/2022
		Response date	02/08/2022
Planning officer	Louise Winson	Reviewing officer	Jack Harriman
Application type	Outline	Extension requested	<input type="checkbox"/>
Refer to standing advice	Conditions	Further consultation required	Concerns
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Consultation checklist

No.	Description	Check
1	Location plan	<input checked="" type="checkbox"/>
2	Proposed layout plan	<input checked="" type="checkbox"/>
3	Evidence that the site can be drained	<input checked="" type="checkbox"/>
4	Topographic and ground investigation details	<input checked="" type="checkbox"/>
5	The total impermeable area pre and post development	<input checked="" type="checkbox"/>
6	All potential flood risk sources have been identified and assessed	<input checked="" type="checkbox"/>
7	Existing and proposed peak discharge rates	<input checked="" type="checkbox"/>
8	Consideration of sustainable drainage systems	<input checked="" type="checkbox"/>
9	Attenuation volume calculations	<input checked="" type="checkbox"/>
10	Consideration of the maintenance and management of all drainage elements	<input checked="" type="checkbox"/>

LLFA Key Observations and Advice

Leicestershire County Council as Lead Local Flood Authority (LLFA) notes that the 18.34 ha greenfield site is located within Flood Zone 1 being at low risk of fluvial flooding and a high risk of surface water flooding in the northwest part of the site.

The site is proposed to be split into 4 sub-catchments with their own outfall and attenuation. The proposals seek to discharge at a total of 36.6 l/s via dry detention basins to the on-site watercourse. The individual sub-catchment discharge rates and attenuation volumes have been itemised on the drainage strategy plan.

To prevent increasing flood risk outside the site boundary it is proposed that a flow control is constructed where the watercourse leaves the development although it is not explained why this is required if new development discharge is limited to Q_{bar} . The flood risk assessment does not mention historical flooding at the site to justify this.

To support proposals, the applicant has commissioned a pluvial flood modelling due to the aforementioned high surface water flood risk according to the Environment Agency's RoFfSW map. The conclusions of this report are that the RoFfSW maps results of exceedance are broadly accurate and that development will not exacerbate flood risk across third-party land and will reduce the peak flow leaving the site due to the in-watercourse flow control. Recommendations are for an emergency spillway at the sites western boundary should the watercourse overtop.

Subsequent to the previous LLFA response the applicant has submitted a revised modelling study document includes an assessment of JBA Consulting's model methodology, carried out by BWB Consulting. The initial check of the model found some discrepancies however a second check has resolved these. However, some elements of the model will be dependent on the outcomes in detailed design. Due to this application being outline, this is advised to be acceptable at this stage.

Leicestershire County Council as Lead Local Flood Authority (LLFA) advises the Local Planning Authority (LPA) that the proposals are considered acceptable to the LLFA and we advise the following planning conditions be attached to any permission granted.

Advised Conditions

1. No development approved by this planning permission shall take place until such time as a surface water drainage scheme has been submitted to, and approved in writing by the Local Planning Authority. The development must be carried out in accordance with these approved details and completed prior to first occupation.

Reason: To prevent flooding by ensuring the satisfactory storage and disposal of surface water from the site.

2. No development approved by this planning permission shall take place until such time as details in relation to the management of surface water on site during construction of the development has been submitted to, and approved in writing by the Local Planning Authority. The construction of the development must be carried out in accordance with these approved details.

Reason: To prevent an increase in flood risk, maintain the existing surface water runoff quality, and to prevent damage to the final surface water management systems though the entire development construction phase.

3. No occupation of the development approved by this planning permission shall take place until such time as details in relation to the long-term maintenance of the surface water drainage system within the development have been submitted to and approved in writing by the Local Planning Authority. The surface water drainage system shall then be maintained in accordance with these approved details in perpetuity.

Reason: To establish a suitable maintenance regime that may be monitored over time; that will ensure the long-term performance, both in terms of flood risk and water quality, of the

surface water drainage system (including sustainable drainage systems) within the proposed development.

4. No development approved by this planning permission shall take place until such time as infiltration testing has been carried out (or suitable evidence to preclude testing) to confirm or otherwise, the suitability of the site for the use of infiltration as a drainage element, has been submitted to and approved in writing by the Local Planning Authority.

Reason: To demonstrate that the site is suitable (or otherwise) for the use of infiltration techniques as part of the drainage strategy.

5. Prior to approval of reserved matters, revised modelling against the proposed layout demonstrating sufficient flood risk mitigation is to be submitted to and approved in writing by the Local Planning Authority.

Reason: To demonstrate that the surface water model's results and conclusions are maintained once detailed proposed level information and plot layouts are included.

Respective Condition Notes

1. The scheme shall include the utilisation of holding sustainable drainage techniques with the incorporation of sufficient treatment trains to maintain or improve the existing water quality; the limitation of surface water run-off to equivalent greenfield rates; the ability to accommodate surface water run-off on-site up to the critical 1 in 100 year return period event plus an appropriate allowance for climate change, based upon the submission of drainage calculations.

Full details for the drainage proposal should be supplied including, but not limited to; construction details, cross sections, long sections, headwall details, pipe protection details (e.g. trash screens), and full modelled scenarios for the 1 in 1 year, 1 in 30 year and 1 in 100 year plus climate change storm events.

2. Details should demonstrate how surface water will be managed on site to prevent an increase in flood risk during the various construction stages of development from initial site works through to completion. This shall include temporary attenuation, additional treatment, controls, maintenance and protection. Details regarding the protection of any proposed infiltration areas should also be provided.
3. Details of the surface water Maintenance Plan should include for routine maintenance, remedial actions and monitoring of the separate elements of the surface water drainage system that will not be adopted by a third party and will remain outside of individual property ownership. For commercial properties (where relevant), this should also include procedures that must be implemented in the event of pollution incidents.
4. The results of infiltration testing should conform to BRE Digest 365 Soakaway Design. The LLFA would accept the proposal of an alternative drainage strategy that could be used should infiltration results support an alternative approach. Where infiltration is deemed viable, proposed infiltration structures must be designed in accordance with CIRIA C753 "The SuDS Manual" or any superseding version of this guidance.

5. The detailed model should maintain conclusions that the proposal, which involves the raising of ground levels, will not exacerbate flood risk across third-party land and provide sufficient protection on-site.
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Advice to the Local Planning Authority

1. Standing Advice – National Planning Policy Framework

When determining planning applications, the local planning authority should ensure flood risk is not increased elsewhere and only consider development appropriate in areas at risk of flooding where informed by a site-specific Flood Risk Assessment (FRA) confirming it will not put the users of the development at risk. Where an FRA is applicable this should be undertaken in accordance with the requirements of the National Planning Policy Framework and accompanying Planning Practice Guidance.

2. Standing Advice – Consent

Where there are any works proposed as part of an application which are likely to affect flows in an ordinary watercourse or ditch, the applicant will require consent under Section 23 of the Land Drainage Act 1991. This is in addition to any planning permission that may be granted. Guidance on this process and a sample application form can be found via the following website: <http://www.leicestershire.gov.uk/flood-risk-management>

Applicants are advised to refer to Leicestershire County Council's culverting policy contained within the Local Flood Risk Management Strategy Appendix document, available at the above link. No development should take place within 5 metres of any watercourse or ditch without first contacting the County Council for advice.

This consent does not consider local watercourse bylaws. It is the responsibility of the applicant to check if the local borough or district council has their own bylaws which the proposals will also need to consider.

3. Standing Advice – Maintenance

Note that it is the responsibility of the Local Planning Authority under the DEFRA/DCLG legislation (April 2015) to ensure that a system to facilitate the future maintenance of SuDS features can be managed and maintained in perpetuity before commencement of the works.

4. Standing Advice – Ground floor levels

For developments in Flood Zone 2 or in 1:100 year Updated Flood Map for Surface Water outline, ground floor levels to be set at a minimum of whichever is higher;

- 300mm above the general ground level of the site OR
- 600mm above the Flood Zone 2 water level.
- Basement rooms to have unimpeded access internally to an upper level

In order to deliver safe development we advise that single storey buildings or ground floor subdivisions with no access to higher floors, should have access to a refuge set above the 1 in 1000 annual probability (0.1%) in any year flood level including an allowance for climate change.

5. Standing Advice – Overland flow routes

Overland flow routes as shown on the update map for surface water should be considered such that buildings are not placed directly at risk of surface water flooding. Such flow routes should be utilised for roads and green infrastructure

6. Standing Advice – Ditches

Where a drainage ditch adjoins or flows through a development, provision should be made such that the ditch can be made throughout the life of the development. The ownership and responsibility for maintenance of the ditch should also be clearly identified and conveyed to the relevant parties.

Additional information and guidance is available here:

<https://www.leicestershire.gov.uk/environment-and-planning/flooding-and-drainage/>

Note: Response provided by the Lead Local Flood Authority under the delegated authority of the Director of Environment and Transport.