Build Vision
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Our Ref: 1314/SJG
Your Ref:

3rd May 2023

Mr and Mrs Hensby
Berry Moor House Farm
Silkstone Common
S75 4RF

Dear Mr and Mrs Hensby,

Re: Proposed Residential Development at Berry Moor House Farm, Silkstone Common S75 4RF - Brief FRA and Drainage Strategy

A brief flood risk assessment and drainage strategy has been carried out for the above site in accordance with Planning Policy Guidance ID7 Flood Risk and Coastal Change and SuDs guidance based on available flood maps and the development proposals provided.

The Environment Agency (EA) Flood Risk Maps indicate that the site is in Flood Zone 1. Flood Zone 1 is classified as having a 'very low' probability of flooding with a flood risk of less than 1 in 1000. The site area is 0.45 Ha which is less than 1 Ha and therefore a Flood Risk Assessment should not be required but in accordance with the local authorities planning requirements, a surface water drainage strategy and SuDs assessment are required. The EA Surface Water Flood Risk Maps indicate very low risk of surface water flooding on the site.

In accordance with PPG ID7 and SuDs and surface water hierarchy guidance, surface water run-off from new developments should not exceed existing run-off rates and should provide a 30% or 50% reduction in flows dependant on whether it is in a critical drainage area and SuDs and greenfield run-off rates should be implemented where possible. Surface water drainage should discharge to SuDs systems, if these are not suitable to a nearby watercourse, if not present to a surface water sewer and if not present to a combined sewer as a last resort. Foul drainage should discharge to a public foul or combined sewer and if not present to a sewage treatment plant.

With regards to the SuDs assessment, the use of sustainable drainage systems (SuDs) such as soakaways, permeable pavements, infiltration basins, ponds and swales should be incorporated where possible into the surface water drainage design to reduce surface water runoff from the development. Ground investigations should be carried out to confirm the ground conditions and soakaway tests should be carried out in accordance with BRE365 to determine infiltration co-efficients to confirm whether the site is suitable for infiltration methods of SuDs.

The ground investigations have identified clay over sandstone ground conditions and three no. soakaways were carried out at the site but had to be abandoned as no change in water levels or infiltration were recorded within 24 hours and therefore the ground is not considered suitable for soakaways. Drainage investigations carried out on site have identified that rwps and gullies from the existing farm buildings and yard areas discharge to the existing culverted watercourse identified in the northeast area of the site that discharges to Hollin Dike to the southeast of the site, this was confirmed by dye testing. Permeable pavements SuDs are proposed for the access road and parking areas and have been incorporated into the drainage design and attenuation provided within the drainage system for storms up to 30 years plus a 35% allowance for climate change and within the site for storms up to 100 year plus a 40% allowance for climate change in accordance with flood risk guidance and the surface water discharges to the nearest available watercourse, which in this case is the culverted watercourse crossing through the site from northeast to southeast discharging to Hollin Dike ordinary watercourse to the southeast. Post development proposed roof areas are less than 50% of pre-development roof and yard areas and therefore flows discharging to the watercourse will be significantly reduced.

There are no public foul or combined sewers in the vicinity and therefore sewage treatment plants are proposed for each plot for the foul drainage which provide primary and secondary levels of treatment and discharge the treated water to the surface water sewers which discharge to watercourse in accordance with the Environment Agency General Binding Rules For Small Sewage Discharges.

Residual overland flood routes have been assessed and emergency access and egress routes provided and these and the floor levels of the proposed properties are above residual flood levels to reduce the risk to homeowners and flooding of the properties.

The drainage strategy and proposals are subject to the agreement with and approval of the Local Authority LLFA Drainage Engineers and Planning Authority. Should you require any further information or if you would like to discuss anything please do not hesitate to contact me.

Yours sincerely,

Sarah Griggs

For and on behalf of Build Vision