

Our Ref: 1332/SJG

Your Ref:

18th March 2024

J Walker Homes Ltd.
Joshua House
35 Joshua Lane
Middleton
Manchester
M24 2AY

Dear Jon,

Re: Proposed Residential Development at Baytree Lane, Middleton M24 2EB -
Brief FRA and Drainage Strategy

In accordance with the local authorities planning requirements, a surface water drainage strategy and SuDs assessment are required for major developments or sites in critical drainage areas. A Brief FRA and a 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 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 low probability of flooding with a flood risk of less than 1 in 1000. The redevelopment site area is approx. 0.1 hectares and is less than 1 hectare and therefore a Flood Risk Assessment shouldn't be required unless it is in a critical drainage area, this should be confirmed with the LLFA. The EA Surface Water Flood Risk Maps indicate very low risk of surface water flooding on the site. Groundwater flooding maps indicate potential for groundwater flooding of properties situated below ground level 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. Foul drainage should discharge to a public sewer and surface water drainage should discharge to sustainable urban drainage systems (SuDs), 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.

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. Site Investigation 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. Should these prove inadequate, permeable pavements, basins, ponds, swales and cellular attenuation should still be considered for attenuation and to slow down flows.

The foul drainage from the site has been designed to discharge to the nearest available public foul sewer, the 300mm combined sewer in Baytree Lane to the east of the site.

The site investigation has identified made ground over sand and clay drift deposits. A soakaway test has been carried out in the sand and clay drift deposits in accordance with BRE365 to determine infiltration co-efficients and to confirm whether the site is suitable for infiltration methods of SUDS. The results were poor and the half drain time exceeded 24 hours and therefore soakaways are not feasible for the plots roof water. However, the half drain time doesn't exceed 24 hours for permeable pavements with infiltration and therefore these are feasible for the plots parking areas.

As discharge into the ground is not feasible for the plots roof water drainage and there are no watercourses or surface water sewers in the vicinity, the roof water drainage has been designed with attenuation provided within the drainage system in the pipes and manholes and the permeable pavements for storms up to 30 years plus a 40% allowance for climate change in accordance with United Utilities requirements and within the site for storms up to 100 year plus a 45% allowance for climate change in accordance with planning policy guidance and flow rates limited by flow control devices to the minimum flow of 4.5 l/s from a minimum 100mm size flow control to prevent blockages discharging to the combined sewer in Baytree Lane to the east of the site, subject to agreement with United Utilities.

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

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

Flood map for planning

Your reference
1332 Baytree

Location (easting/northing)
388557/406016

Created
15 Mar 2024 11:16

Your selected location is in flood zone 1, an area with a low probability of flooding.

You will need to do a flood risk assessment if your site is **any of the following:**

- bigger than 1 hectare (ha)
- In an area with critical drainage problems as notified by the Environment Agency
- identified as being at increased flood risk in future by the local authority's strategic flood risk assessment
- at risk from other sources of flooding (such as surface water or reservoirs) and its development would increase the vulnerability of its use (such as constructing an office on an undeveloped site or converting a shop to a dwelling)

Notes

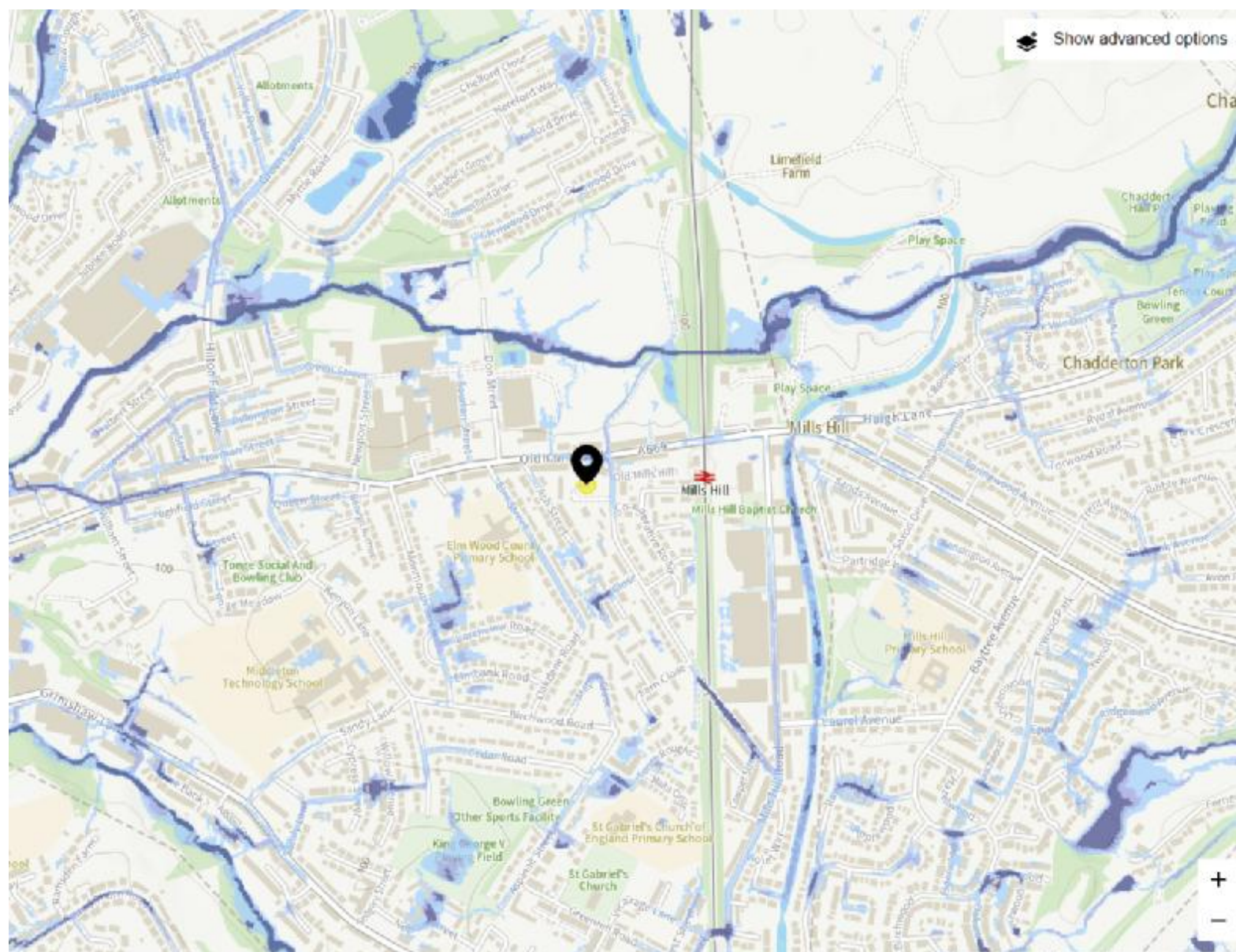
The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

Flood risk data is covered by the Open Government Licence **which** sets out the terms and conditions for using government data. <https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/>

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Key

Surface water

Extent

High risk

More than 3.3% chance each year

Medium risk

Between 1% and 3.3% chance each year

Low risk

Between 0.1% and 1% chance each year

Depth

Map details

☒ Show flooding

☒ Selected address

15m boundary