

Our Ref: 1332/SJG

Your Ref:

25th April 2024

TEC Services Ltd.
Unit 6
3a Eagar Street
Manchester
M24 1LR

Dear Terry,

Re: Proposed Residential Development Travis Court at 342 Heywood Old Road, Middleton M24 4QG - 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. 0.17 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 to occur at the surface.

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.

There are no foul sewers within the vicinity of the site and the former Tapios pub that was present on the site and the adjacent properties all have septic tanks. The nearest foul sewer shown on the United Utilities sewer records is a private foul sewer approx. 100m northeast of the site in the David Lloyd Leisure Centre site but this discharges to a private pumping station that has a pumped rising main to the public combined sewer approx. 500m east of the site. Even if permission to discharge to this sewer were granted which is very unlikely, the pumping station will not have adequate capacity for the additional foul discharge from the development. The next nearest foul sewer is a public combined sewer shown approx. 130m south of the site but drainage CCTV surveys have confirmed that this discharges to a culverted watercourse and it is thought that this may be a surface water sewer or highway drain that has foul discharge connections. Discussions with the property owners to the south confirmed that the properties all have septic tanks that are maintained by a local farmer but as UU sewer records show this sewer as a combined sewer it is assumed that foul discharge connections have been proven by UU. The drainage investigation results will be sent to United Utilities and the Local Authority for consideration. As this sewer discharges to a culverted watercourse, the foul drainage from the site cannot therefore discharge to this sewer and as there are no other public sewers within 300m of the site, a new sewage treatment plant will be provided for the foul drainage from the development, minimum 7m away from proposed and existing properties and this will discharge to the existing sewer present on the site that discharges to the culverted watercourse to the south of the site, in accordance with Building Regulations and the DEFRA General Binding Rules for small sewage discharges.

The site investigation has identified made ground over sand and clay drift deposits. Soakaway tests have 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 roof water. However, permeable pavements are considered feasible for the plots parking areas. Infiltration rates although poor indicate that some infiltration will occur but infiltration rates of zero have been conservatively used for the drainage model to ensure adequate attenuation is provided.

As discharge into the ground is not feasible for the roof water drainage, 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 existing sewer on the site that discharges to the culverted watercourse to the south of the site, subject to agreement with the local authority.

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
M24 4QG

Location (easting/northing)
384449/406600

Created
25 Apr 2024 12:12

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/>

Use of the address and mapping data is subject to Ordnance Survey public viewing terms under Crown copyright and database rights 2022 OS 100024198. <https://flood-map-for-planning.service.gov.uk/os-terms>

Flood map for planning

Your reference

M24 4QG

Location (easting/northing)

384449/406600

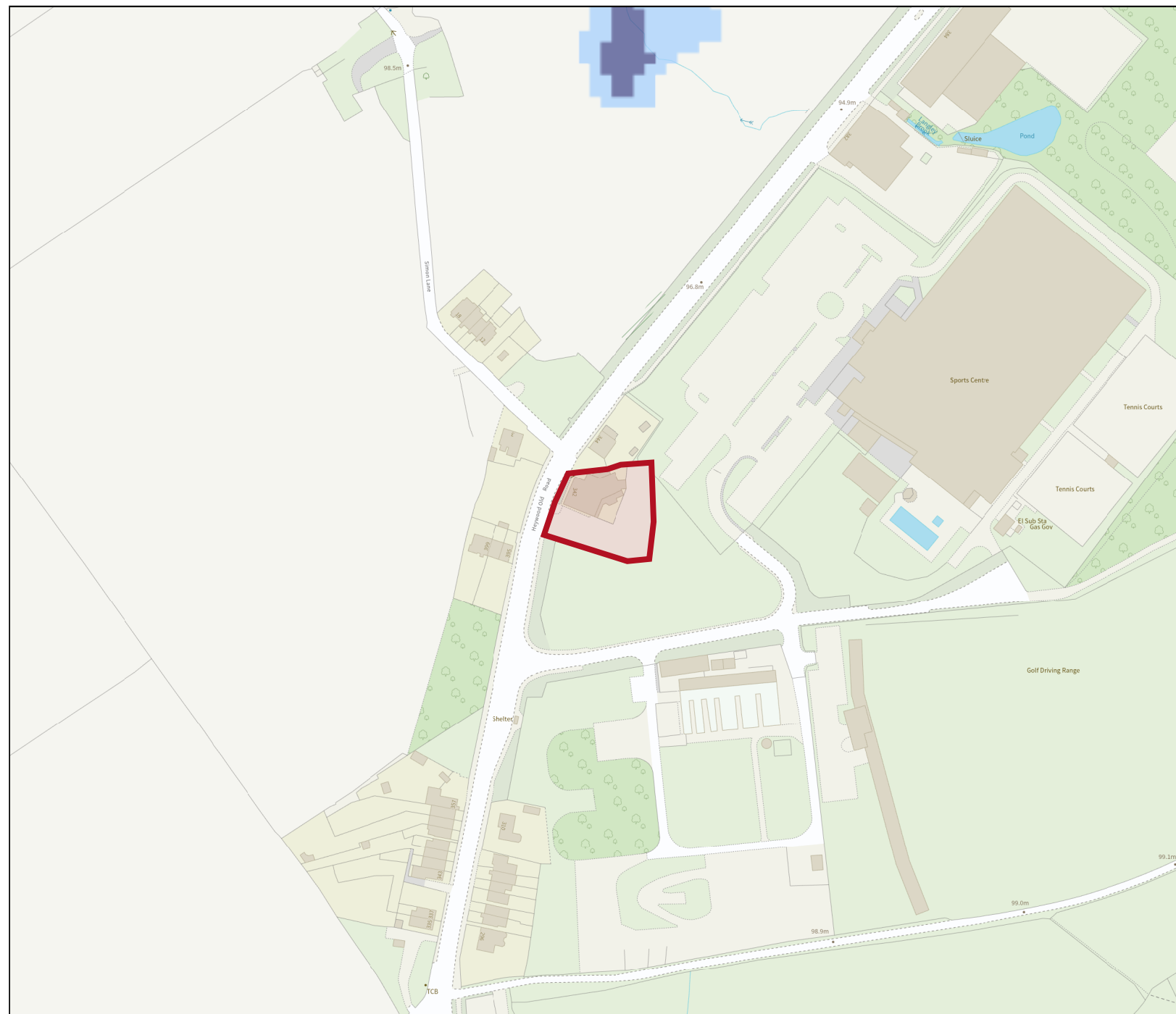
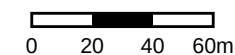
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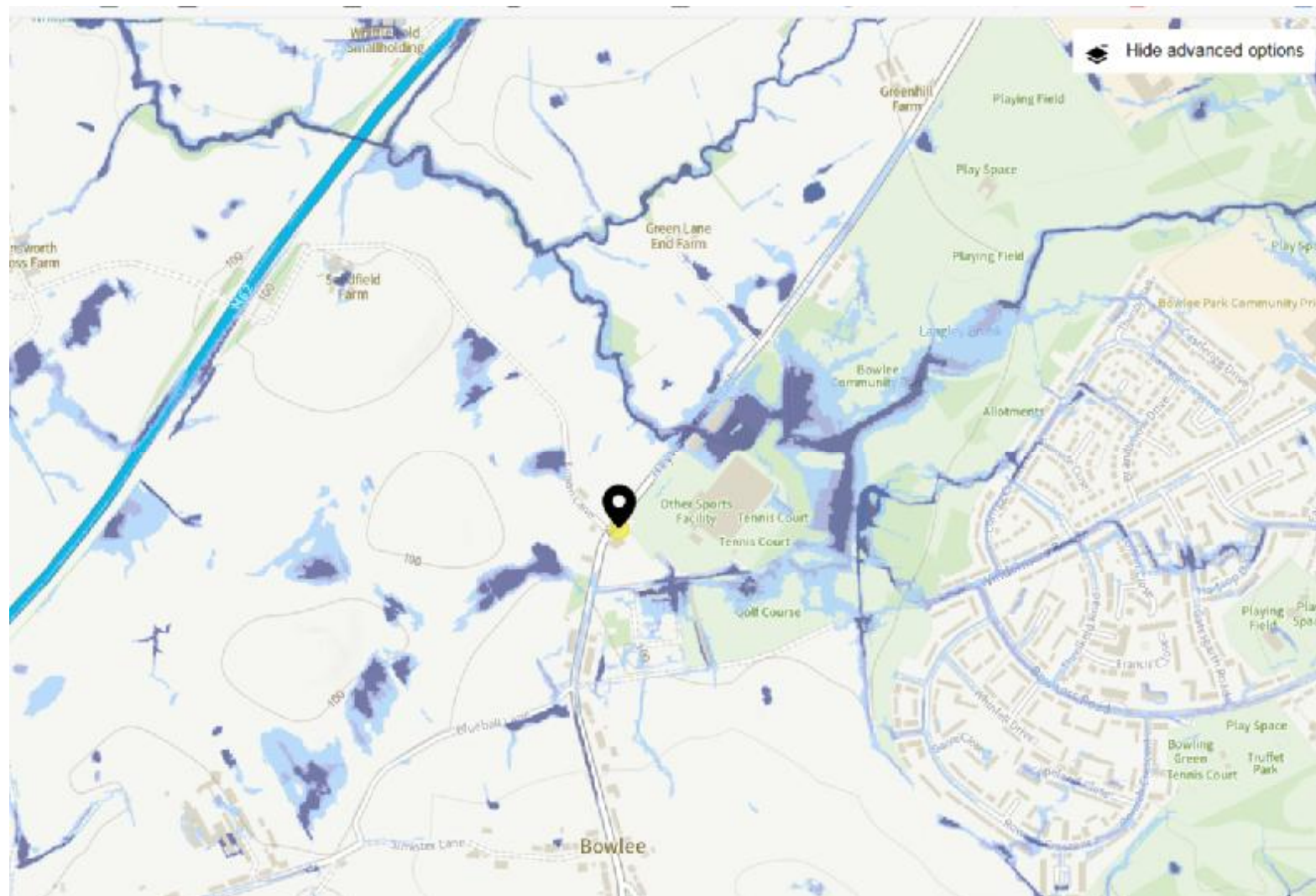
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Created

25 Apr 2024 12:12

-  Selected area
-  Flood zone 3
-  Flood zone 2
-  Flood zone 1
-  Flood defence
-  Main river
-  Water storage area





Hide advanced options

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

 Velocity

Rivers and the sea

 Extent

Reservoirs

 Extent

Map details

- ☒ Show flooding
- ☒  Selected address
-  15m boundary