

Flood Risk and Drainage Strategy Statement

Title: Flood Risk and Drainage Strategy Statement
Date: 12/12/2025
Author: Robert Ainsworth, CEng, MICE (amended – Euan Dale, CEng, MICE Jan 2026)

Rev-A Update:	<i>Drawing references updated; reformatted; Appendix 1 added</i>
Rev-B Update:	<i>Minor updates to reflect planning proposals</i>
Rev-C Update:	<i>Minor updates to reflect planning proposals</i>

1.0 Introduction

At the request of Lysander, Goodson Associates Consulting Engineers has been asked to provide supporting statements relating to Flooding and Drainage Impact in support of proposed alterations to an existing distribution warehouse in Knowsley, near Liverpool.

The statements consider drawings submitted as part of the planning application including

- 25108_ASA_00_EX.SI_D_A_0003 Proposed Site Plan (P05)

2.0 Existing Site

2.1 Context

The site is located on land east of the A5207 Moorgate Road North and south of the A5208 South Boundary Road, in a business park near Knowsley, centered on National Grid Reference SJ426978. The site is currently developed as a distribution and storage warehouse with associated infrastructure including service yards, roads and parking areas.

2.2 Surrounding Land Uses

The surrounding land uses can be summarised as follows:

- To the North: A5208 road with industrial warehousing beyond
- To the East: industrial plots.
- To the South: industrial plots.
- To the West: A5207 road with school playing fields beyond.

3.0 Development Proposals

It is proposed that areas of alterations will be captured by the existing urban drainage network which currently provides appropriate levels of surface water treatment and attenuation prior to discharge to the drainage network. The impermeable areas of the site are remaining constant and therefore there is no change in the site's peak surface water runoff.

Foul water is also intended to utilise existing connections in the site.

4.0 Flood Risk Assessment

4.1 Context

In accordance with National Planning Policy Framework (NPPF) for England, the Flood and Water Management Act UK 2010, and associated Planning Practice Guidance, a statement with respect to Flood Risk is not required as Site Area does not exceed 1.0Ha and falls within Flood Risk Zone 1 (Low Risk).

4.2 Historical Study

A flood risk assessment was prepared in support of the original planning application, reference 17/00626/FUL (document reference PM4449 Rev-A).

4.3 New Development

Work associated with this planning application do not increase the external area of hard standing or the storm flows from the existing site and as such does not increase the flood risk in or beyond the site

Interrogation of the latest Environment Agency current flood map (viewable [HERE](#)) confirms that the site does not sit in – or close to – Flood Risk Zone 2 or Flood Risk Zone 3. As such, there is no increased flood risk associated with this application.

5.0 Surface Water Drainage Strategy

5.1 Historical Context

The existing drainage system is detailed under the Drainage Scheme produced by Tier Consult – CL(19)01 & CL(19)02 as per the original approved planning discharge of condition reference – 17/00626/FUL.

The plot surface water drainage from the existing facility is connected to sewers at two adjacent plots within the business park. This includes two points of surface water connections: one to the southwest corner of the site and one to southeast SE corner of the site. Each serves a proportion of the site's external yard and building roof and contain petrol interceptors. This can be seen in **Appendix 1**.

Ultimately the surface water system discharges to United Utilities public sewers. Planning Approval 17/00626/FUL notes past acceptance from United Utilities of the drainage proposals in the discharge of condition 12 of the former planning application 16/00400/FUL. A copy of the original consultation response is not available.

Planning reference	Application	Consultee	Response
17/00626/FUL		United Utilities	The surface water drainage scheme approved pursuant to condition 12 attached to planning permission 16/00400/FUL shall be fully implemented prior to the first occupation of the development unless otherwise agreed in writing by the Local Planning Authority.

5.2 New Development

The new planning application for the site does not increase the area of roof, service yard or drained hardstanding. As such, storm flows from the site remain as existing as per the original planning approval 17/00626/FUL.

6.0 Foul Water Drainage Strategy

The site includes a foul connection to the southeast corner of the site which serves the internal areas of the building and the area of the dock levellers.

With respect to foul the flows from the site, the proposed works include additional areas of plant, which will tie into the existing foul network. The characteristic foul water discharge from the development has been calculated in accordance with guidance from "British Water Flows and Loads 4", using recommendations of loading of 100 litres per person per day. These are summarised in Table 1 below.

Table 1. Foul Water Discharge

Proposed Average Discharge (l/s)	Proposed Peak Discharge (l/s)
0.307	0.767

The existing below ground foul drainage pipes have a minimum of 100mm diameter and have the capacity to accommodate this flow.

The original drainage strategy report notes that foul flows are expected to be less than 5 litres/sec and the existing foul drainage sewer has adequate capacity to receive these flows. Proposed foul discharges remain within this value and are of low magnitude flow.

Therefore, the surrounding foul water sewers are deemed to have adequate capacity for the proposed foul water discharge and nominal increases in average and peak flows that may arise.

7.0 Conclusions

The drainage assessment can be deemed to satisfy all elements of the latest guidelines, technical requirements and planning policies published by the key stakeholders with regards to impact upon the existing drainage systems and the natural water environment.

Surface water run-off will continue to discharge to the surrounding public sewer network. No increases to peak or mean flows are proposed and no detrimental changes to water quality will take place.

Foul sewerage from the development will continue to be conveyed to the surrounding public sewers, which are considered to have adequate capacity to discharge existing flows and the nominal increase in foul flows that may arise.

All sources of flood risk have been assessed and flood risk to the site remains Low Risk.

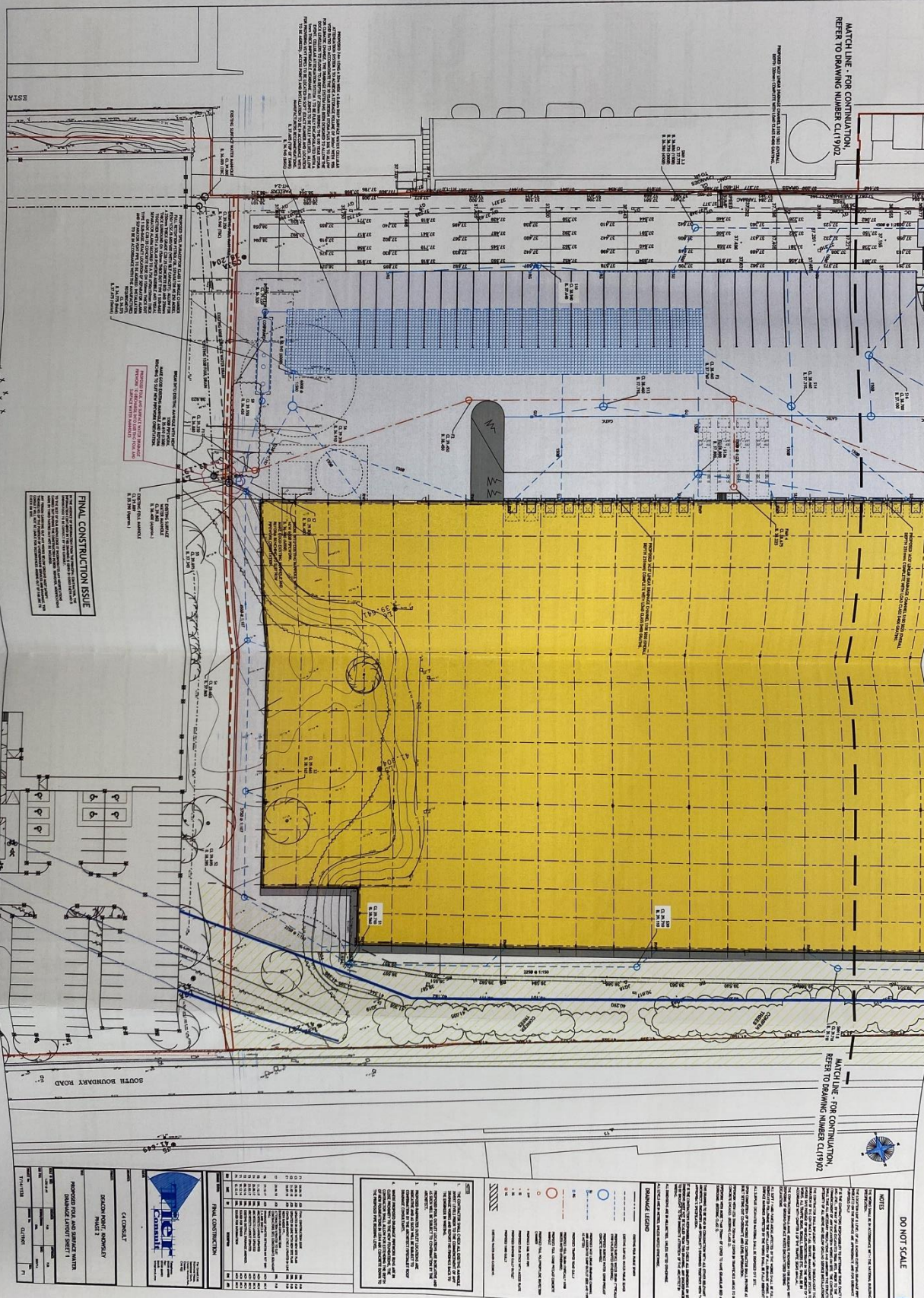


Figure 2. Drainage Plan East (2 of 2)