



2527-Willow Street, Bury

Drainage Strategy
& Maintenance Document

Rev: P01 Date: 23/02/2023

1. Assessment of Drainage Options

The site is to be assessed for the suitability of infiltration type surface water drainage systems in accordance with BRE Digest 365; however,

The site is to be assessed for the suitability of infiltration type surface water drainage systems in accordance with BRE Digest 365; however, due to the knowledge of the site and surrounding areas it is assumed subsoils are not permeable, a review of the pending ground investigations survey will provide further clarification, however, if recommended via the planning process this may require further clarification by way of BRE 365 infiltration tests.

The site has been assessed for the viability of a surface water connection to an existing local watercourse. No local watercourse within the vicinity of the site, therefore connection into watercourse not viable.

The site is brownfield and is therefore surrounded with a positive sewer network. Copies of the United Utilities sewer records have been obtained and to be verified on site as generally accurate. Existing manholes are to be lifted to check pipe diameters, depths, and routes. According to the records the surrounding sewers are surface and combined water sewers.

Private on-site manholes offer an outfall solution for both surface and foul waters separately, further investigations are required to confirm depths, line, and levels. If however, the depths do not lend themselves to a gravity solution it will be determined that drainage connections from the proposed development should be routed to the existing surface and combined water public sewer networks surrounding the development site. A S106 application will be undertaken in accordance with the Water Industry Act to United Utilities for sewer connections.

2. Drainage proposals

Details of the proposed drainage are shown on the following drawing:

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The main sewerage for the development will be kept private with foul water connecting to the existing combined sewer network via an existing combined sewer manhole connection and surface water connecting into the existing surface water network. This therefore ensures that the main foul and surface water sewerage infrastructure shall be owned and maintained by the client or management company. United Utilities and the Lead Local Flood Authority are to be consulted to agree a 5l/s discharge rate for the surface water sewer.

The surface water sewer system has been designed in accordance with Sewers for Adoption 6th Edition and therefore includes the design for attenuation of flows for up to a 1 in 100 year + 40% climate change storm events without flooding. The outflow to the public sewer will be controlled by a hydrobrake device manhole. Attenuation has been provided in the form of cellular storage. This attenuates up to and including the 1 in 100 year + 40% CC return period for a site impermeable area of 879m². The hydrobrake has been designed to restrict surface water flows to a discharge rate of 5.0l/s. Details of the hydrobrake can be found in the Micro drainage calculations and hydro-international details.

It is to be agreed with united utilities that the foul drainage will discharge with an assumed free discharge to the existing foul sewer surrounding the site.

A proposed maintenance plan shown in Table 1 breaks down the maintenance responsibility and regimes of the other various assets.

Table 1: Proposed Maintenance (in accordance with best practice and CIRIA C753 – The SuDS Manual).

Drainage Asset	Responsible Organization	Maintenance Work	Frequency
Pipework / Manholes	Private Ownership / Management Company	Inspect pipe work and clear blockages	Annually or after severe storms.
		Inspect manholes and clear blockages	
		Repair any defects in network	
Hydro brake	Management Company	Inspect structure and remove any debris/litter on structure	Six monthly or after severe storms.
Catchpits prior to attenuation	Management Company	Inspect structure and remove any debris/litter on structure	Three monthly or after severe storms.
Cellular Storage	Management Company	Inspect structure and remove any debris/litter on structure	Annually or after severe storms.