
Surface Water Drainage Management and Maintenance Plan And Verification Report

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Wythenshawe**

**Client Name: Wythenshawe Community Housing
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Surface Water Drainage Maintenance and Management Plan

1. Introduction
 - 1.1 Planning condition 15 requires details of the implementation, maintenance and management of the surface water drainage scheme is submitted and approved by the local planning authority.
 - 1.2 The scheme is to be implemented in accordance with the details submitted to discharge planning condition 14.
 - 1.3 The verification report should include:
 - 1.3.1 Photographic evidence of the construction confirming installation as per the approved details.
 - 1.3.2 As built drawings if the constructed surface water management system differs from the design construction drawings.
 - 1.3.3 A Management and Maintenance Plan for the lifetime of the development which should identify arrangements to secure operation of the sustainable drainage scheme for the lifetime of the development.
 - 1.4 The proposed surface water system consists of a piped network, permeable surfacing, an attenuation system, and flow control.
 - 1.5 The permeable surface offers water quality improvements to the surface water runoff from the car park by removing hydrocarbons, metals, and suspended solids.
 - 1.6 Storage for all events is provided with in the cellular attenuation system.
 - 1.7 The rate of discharge to the public combined sewer is controlled by a vortex flow control (i.e. a Hydrobrake).

2 Verification of Installation

[Contractor to provide verification information including photographic evidence]

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3. Maintenance and Management

- 3.1. The proposed drainage network will remain unadopted and will be managed by the housing association.
- 3.2. The piped network and flow controls will be designed to be largely maintenance free. The flow controls should be inspected at least annually and after major storms.
- 3.3. The SuDS features within the development will be managed and maintained by the housing association (cellular attenuation) and residents (permeable driveways).
- 3.4. Table 20.15 of the SuDS Manual (C753) identifies the operation and maintenance requirements of permeable pavements and Table 21.3 of the SuDS Manual (C753) identifies the requirements for attenuation storage tanks.

Maintenance schedule	Required action	Typical frequency
Regular maintenance	Brushing and vacuuming (standard cosmetic sweep over whole surface)	Once a year, after autumn leaf fall, or reduced frequency as required, based on site-specific observations of clogging or manufacturer's recommendations – pay particular attention to areas where water runs onto pervious surface from adjacent impermeable areas as this area is most likely to collect the most sediment
Occasional maintenance	Stabilise and mow contributing and adjacent areas	As required
	Removal of weeds or management using glyphosate applied directly into the weeds by an applicator rather than spraying	As required – once per year on less frequently used pavements
Remedial Actions	Remediate any landscaping which, through vegetation maintenance or soil slip, has been raised to within 50 mm of the level of the paving	As required
	Remedial work to any depressions, rutting and cracked or broken blocks considered detrimental to the structural performance or a hazard to users, and replace lost jointing material	As required
	Rehabilitation of surface and upper substructure by remedial sweeping	Every 10 to 15 years or as required (if infiltration performance is reduced due to significant clogging)
Monitoring	Initial inspection	Monthly for three months after installation
	Inspect for evidence of poor operation and/or weed growth – if required, take remedial action	Three-monthly, 48 h after large storms in first six months
	Inspect silt accumulation rates and establish appropriate brushing frequencies	Annually
	Monitor inspection chambers	Annually

Figure 1: Operation and maintenance requirements for Permeable Pavements (Source: C753)

TABLE 21.3 Operation and maintenance requirements for attenuation storage tanks		
Maintenance schedule	Required action	Typical frequency
Regular maintenance	Inspect and identify any areas that are not operating correctly. If required, take remedial action	Monthly for 3 months, then annually
	Remove debris from the catchment surface (where it may cause risks to performance)	Monthly
	For systems where rainfall infiltrates into the tank from above, check surface of filter for blockage by sediment, algae or other matter; remove and replace surface infiltration medium as necessary.	Annually
	Remove sediment from pre-treatment structures and/or internal forebays	Annually, or as required
Remedial actions	Repair/rehabilitate inlets, outlet, overflows and vents	As required
Monitoring	Inspect/check all inlets, outlets, vents and overflows to ensure that they are in good condition and operating as designed	Annually
	Survey inside of tank for sediment build-up and remove if necessary	Every 5 years or as required

Figure 2: Operation and maintenance requirements for Storage Tanks (Source C753)

- 3.5. The funding required for the maintenance of the SuDS features and drainage network will be provided by the housing association.

4. Appendix

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