



**TURNER JOMAS & ASSOCIATES**

Environmental & Civil Engineers & Transport Planners

## **Drainage Management and Maintenance Strategy**

**For the site of:  
1 HAMPSHIRE STREET, LONDON**

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## **DRAINAGE MAINTENANCE STRATEGY**

### **1.0 Introduction**

Water Management Techniques aim to prevent run-off as it drains from a site. There are a number of techniques that can be applied to help manage water, as a result of development, including:

SuDS (Sustainable Drainage Systems), which provide a sustainable solution to help reduce and manage surface water run off, which might otherwise cause flooding, and pollution. These are systems created to receive surface water run-off and provide drainage solutions that mimic natural processes rather than piped solutions (e.g. ponds, wetlands, detention basins, underground storage, swales, filter & infiltration trenches, filter strips and permeable surfaces.) The Council will require the provision of SuDS techniques in all householder proposals that involve changes to a sites drainage characteristic, in order to minimise the impact of surface water runoff from the site. Details on SuDS techniques can be found in the CIRIA publication 'The SUDS Manual (C697)' available from their website: [www.ciria.org](http://www.ciria.org).

The proposed drainage system for the site at land at 1 Hampshire Street, London adopts a series of SuDS measures to control the rate of storm water discharge and the quality of the water in line with current practice. It is important that residents are aware of the requirements to maintain the drainage to ensure that SuDS elements operate effectively for their lifetime.

This drainage management and maintenance plan will be incorporated within the Operation and Maintenance (O&M) manual for the buildings and be accessible to those who undertake maintenance. This document should be read in conjunction with the drainage system drawings.

### **2.0 Overview of Maintenance**

All drainage systems, whether piped systems or SuDS systems require regular maintenance. The maintenance of the SuDS system should be included alongside other regular maintenance tasks. The table below gives an overview of typical maintenance tasks and the frequency with which they need to be undertaken.

<b>Activity</b>	<b>Indicative frequency</b>	<b>Typical tasks</b>
Routine/regular maintenance	Monthly to annually (for normal care of SuDS)	Litter picking Inspection of inlets, outlets and control structures
Occasional maintenance	Annually up to 25 years (dependent on the design)	Silt control around components Vegetation management around components Suction sweeping of permeable paving Silt removal from catchpits, soakaways and cellular storage
Remedial maintenance	As required (tasks to repair problems due to damage or vandalism)	Inlet/outlet repair Erosion repairs Reinstatement of edgings Reinstatement



		following pollution Removal of silt build up
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### 3.0 Typical maintenance tasks and frequency for SuDS drainage

The required maintenance for each of the elements that make up the SuDS system is scheduled below. The following guidance is based on CIRIA C753 – The SuDS Manual. It is noted that this is a live document and changes to the types of system and maintenance will be as a result of the detailed design and installation therefore the schedule below may include greater options than required.

### 4.0 Pipes (Including Oversized) & Manholes

#### 4.1 Description

Pipes are proprietary products and the materials can vary across the site and as such where used the manufacture’s recommendations should be followed. Regardless of the product used the pipes will be fully compliant with the drainage specification.

#### 4.2 Operation

Pipes are intended to be the main conveyance across the development. They are intended to be dry except for during rainfall events. These have been designed to be self-cleansing where possible for smaller diameter pipes, and for larger diameters the risk is reduced due to the overall pipe size.

Access for maintenance is provided through access chambers, manholes, rodding plates and rodding eyes.

#### 4.3 Inspection and Maintenance Regime

Regular inspection and maintenance is important to identify areas which may have been obstructed/clogged and may not be drainage correctly thus exposing the development to a greater level of flood risk. Maintenance responsibility for the pipes should be placed with Landowner.

Sediment\material removal should be undertaken in consultation with the environmental regulator to confirm appropriate protocols, as run-off is taken from potentially contaminated areas such as car parks/service yards.

Maintenance Schedule	Required Action	Frequency
Monitoring (to be undertaken more regularly within the first year of operation and adjusted as required)	Initial inspection should be provided as post construction CCTV survey.	N/A
	Inspect for evidence of poor operation via water level in chambers. If required take remedial action.	3-monthly, 48 hours after large storms.



Occasional maintenance	Check and remove large vegetation growth near pipe runs.	6 monthly
Remedial actions	Rod through poorly performing runs as initial remediation.	As required.
	If continued poor performance jet and CCTV survey poorly performing runs.	As required.
	Seek advice as to remediation techniques suitable for the type of performance issue and location.	As required If above does not improve performance.

All drainage will be maintained as required. It is envisaged that minimal maintenance would be needed of the proposed system. Were alterations to the proposed drainage strategy are made, this document shall be updated to include any additional measures that may be required.

The proposed suds systems proposed will seek to reduce runoff and the volume of runoff to mimic the natural process as far as possible thus reducing flood risk elsewhere.