

Access Storage Reading

SuDs Drainage Operations and Maintenance Manual

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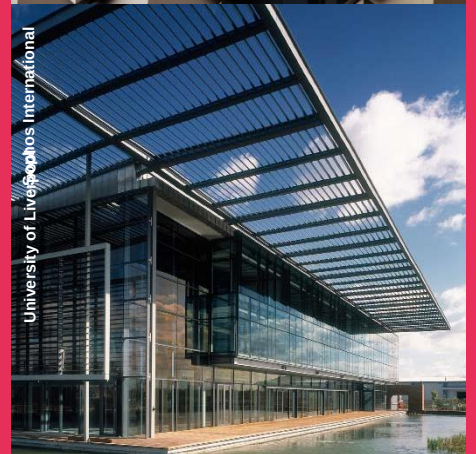
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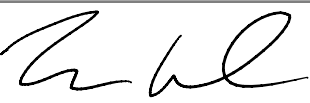
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1.0 Introduction

1.1 Project Background

Curtins has been appointed by Access Self Storage Ltd to prepare a SuDs Drainage Operations and Maintenance Manual as supplementary information to the Drainage Strategy for the proposed development in Portman Road, Reading.

Particular reference is paid to the inspection, aftercare and maintenance of SuDs drainage features as part of this manual in order to demonstrate to the LLFA or adopting authority the effectiveness and longevity of the SuDs features designed within the scheme as opposed to the standard Building Regulations local and domestic drainage and/or the main discharge drainage connections to 'Sewers for Adoption' standards.

This report is based on current best practice guidance.

Proposals contained or forming part of this report represent the design intent and may be subject to alteration or adjustment in completing the detailed design for this project. Where such adjustments are undertaken as part of the detailed design, and are deemed a material derivation from the intent contained in this document, prior approval shall be obtained from the relevant authority in advance of commencing such works.

1.2 Scope of O&M Manual

This manual is intended to give an overview of the operation and maintenance for SuDs features included with the drainage strategy and in relation to typical details only. Where proprietary products are specified the manufacturer's instructions and recommendations should be followed in priority to this document unless specifically noted otherwise due to project constraints.

The recommended operations and frequencies are typical only and should be more frequent initially to ensure that there are no unforeseen issues with the operation and then adjusted to suit the site requirements.

2.0 Attenuation storage tanks (Geocellular units)

2.1 Location and Description

The attenuation tank is located under the car park, as shown on drainage strategy drawing 'B060652 – Proposed drainage layout'.

Attenuation tank is a proprietary product and as such, the manufacture's recommendations should be followed where appropriate. Additionally different manufacturers may have different connection types and arrangements which will need to be taken in to consideration.

2.2 Operation

The attenuation tank is intended to be the surface water storage feature to attenuate the discharge from the site up to and including the 1 in 100 year plus 20% climate change event. The tank is intended to be empty between rainfall events.

Access for maintenance has been provided through inspection chambers.

2.3 Inspection and Maintenance Regime

Regular inspection and maintenance is important for the effective operation of attenuation tanks as designed. As the feature is buried a regularly inspection regime is very important to ensure the correction functionality of the surface water drainage network. Maintenance responsibility for the attenuation tanks and their surrounding areas should be placed with Self Storage Ltd.

Sediment\material removal should be undertaken in consultation with the environmental regulator to confirm appropriate protocols; especially where 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)	Inspect inlets, outlets and overflows for blockages, and clear if required. If faults persist jetting and CCTV survey may be required.	Monthly and after large storms.
	Check penstocks and other mechanical devices (if present).	Half yearly.
	Inspect ventilation cowl (if present)	Monthly and after large storms.
Regular maintenance\inspection	Inspect and identify any areas that are not operating correctly. If required, take remedial action.	Monthly for 3 months, then six monthly
	Debris removal from catchment surface (where may cause risks to performance)	Monthly
	Where rainfall infiltrates into blocks from above, check surface of filter for blockage by silt, algae or other matter. Remove and replace surface infiltration medium as necessary.	Monthly (and after large storms)
	Remove sediment from pre-treatment structures	Annually (or as required after heavy rainfall events)
Remedial actions	Repair/rehabilitation of inlets, outlet, overflows and vents.	As required.

3.0 Pipes (Including Oversized)

3.1 Location and Description

Pipes are the main conveyance across the site with the network as shown on drainage strategy drawing 'B060652 – Proposed drainage layout'.

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 Curtins drainage specification.

3.2 Operation

Pipes are intended to be the main conveyance across the development and where oversized they form the attenuation volume required by the limitation of the discharge rate. They are intended to be dry except for during rainfall events. These have been designed to be self-cleansing 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.

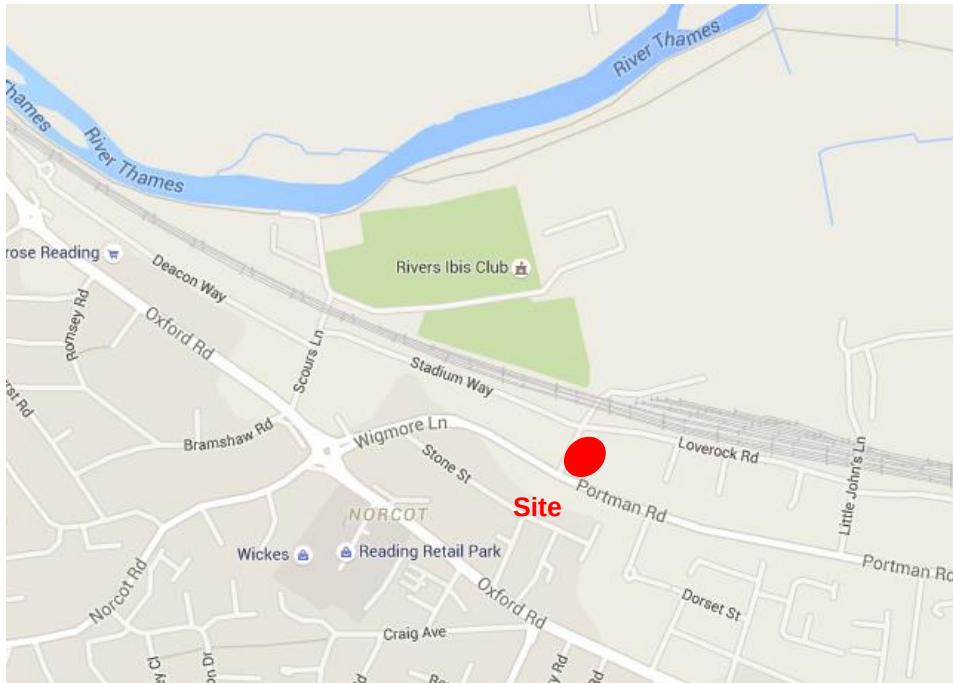
3.3 Inspection and Maintenance Regime

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 Access Self Storage Ltd.

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.

Appendix A - Site Location Plan



Appendix B

Drainage Strategy Report