

Cringle Road Site Drainage Management and Maintenance Plan

Ref: LM20066-DYSE-XX-ZZ-GD-C-0001

Rev: P01

Date: 20/12/2021

Client: Towerhouse Systems

Document Revision

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Date: 20/12/2021

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Date: 20/12/2021

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Date: 20/12/2021

Rev	Description	Date	Originator	Checker	Approver
C01	First Issue	20/12/2021	JDY	BKD	JDY

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1 Introduction

1.1 Overview

This plan has been prepared to set out the Maintenance and Management for the drainage to the housing development at Cringle Road.

1.2 Purpose

The purpose of this plan is to set out the requirements of maintenance to the drainage in order to ensure the body responsible for maintenance is entrusted with a robust inspection and maintenance programme, ensuring the optimum operation of the surface water drainage network is continually maintained for the lifetime of the assets.

The activities listed in this plan are specific to this site and represent minimum maintenance and inspection requirements, however, additional tasks or varied maintenance frequency may be required. Specific maintenance needs of the drainage should be monitored and maintenance schedules should be adjusted to suit requirements.

All those responsible for maintenance should follow relevant health and safety legislation for all activities and risk assessments and method statements should always be provided.

2 SuDS at Cringle Road

The surface water drainage utilises SuDS to manage rainfall and deal with surface water runoff.

The scheme comprises SuDS components including:

- Water butts
- Bio-retention to the driveways
- Tree pits
- Online attenuation
- Offline attenuation
- Flow control devices.

3 Management

3.1 Overview

There are two levels of inspection proposed in this plan:

- **Yearly inspection.** Consists of a site walkover and visual inspection of the drainage.
- **5 yearly inspection.** Consists of a site walkover and visual inspection, and review of a CCTV drainage survey.

There are three categories of maintenance activities referred to in this plan.

- **Regular maintenance** (including inspections and monitoring). Consists of basic tasks done on a frequent and predictable schedule.
- **Occasional maintenance.** Comprises tasks that are likely to be required periodically, but on a much less frequent and predictable basis than routine tasks.
- **Remedial maintenance.** Comprises intermittent tasks that may be required to rectify faults associated with the system, although the likelihood of faults can be minimised by good design. Where remedial work is found to be necessary, it is likely to be due to site-specific characteristics or unforeseen events.

3.2 Responsibilities

Individual home owners are to be responsible for inspection and maintenance of plot drainage.

A management company, responsible for the maintenance of the shared asset (offline attenuation storage), is to be formed. It is envisaged the management company will employ a maintenance company to undertake the regular maintenance

3.3 Further information or advice

In the event of concern over any matter to do with this drainage please contact DYSE.

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4 Inspection

4.1 Yearly

The below table provides recommendations to be included within Milton Keynes Council's regular inspection regime for the structure..

	Yearly inspection
Y1	Manholes and inspection chambers. Annual visual inspection to check free flow from ground level.
Y2	Driveway bio-retention Annual visual inspection to check free flow from ground level.
Y3	Offline attenuation Annual visual inspection to check free flow from ground level.
Y4	Water butts Annual inspection to check inlets are free flowing and serviceable.

4.2 5 yearly

In addition to the yearly inspection, all drainage should be surveyed by a specialist drainage CCTV company and a report should be provided to document the condition of the drainage and make any recommendations for remedial repair works.

5 Maintenance

5.1 Regular maintenance

The below table summarises the regular maintenance required.

	Regular Maintenance	Frequency
A1	Litter management Pick up all litter on hard surfaces and in landscaped areas.	Monthly
A2	Grass maintenance Mow all grass.	As required or monthly
A3	Hard surfaces Sweep regularly.	Monthly
A4	Flow control devices Normally, little maintenance is required as there are no moving parts within the device. However, it is recommended that the unit should be inspected for debris or blockages.	6 monthly

5.2 Occasional maintenance

The below table summarises the occasional maintenance required.

	Regular Maintenance	Frequency
B1	Inspection chambers Inspect chamber cover and frame for any defects, repair and replace as necessary. Inspect chamber interior and incoming/ outgoing pipes for the build-up of silt and debris. Removal of silt and debris by means of vacuum suction and or jetting/ rodding. Ensure manhole access steps/ ladders are secured and inspect for corrosion.	Yearly
B2	Inlets, outlets, gulleys and channels Inspect and remove silt and leaves from gullies and channels. Inspect cover and frame for any defects, repair and replace as necessary. Inspect sumps and outgoing pipework for the build-up of silt and debris. Removal of silt and debris by means of vacuum suction and or jetting/ rodding.	Initially a 6 monthly inspection and if found to be acceptable, reduce to yearly.
B3	Geo-cellular attenuation Inspect and identify any areas that are not operating correctly. If required take remedial actions. Remove sediment from inlet manhole. Repair/ rehabilitate inlets, outlet, overflows and vents. Inspect/ check all inlets, outlets, vents and overflows to ensure they are in good conditions and operating as designed. Survey inside of tank for sediment build-up and remove if necessary	Yearly

5.3 Remedial maintenance

The below table summarises the occasional maintenance required.

	Remedial Maintenance	Frequency
C1	Inlet and outlet repairs Repair damage to inlets and outlets.	As required.
C2	Inspection chamber repairs Repair damage to inspection chambers.	As required.
C3	Carrier drain repairs	As required based on 5 yearly CCTV survey.
C4	Bio-retention Remove stone layer and geotextile fabric around bio-retention to remove silting and replace geotextile and stone.	Should a failure occur, or the system becomes end of life (based on the 5 yearly CCTV survey).

Appendix A - Maintenance inspection record

This maintenance inspection record should be completed yearly during an annual inspection. A photographic record should be completed and stored with the maintenance inspection record.

The below template should be amended or developed as required.

General information	
Site location	Cringle Road
Inspection frequency	Annual.
Type of development	Housing
Inspection date	

Inspection items	Details	Action required (Y/N, description)
Evidence of erosion, ponding, channelling or other poor hydraulic performance.		
Evidence of accidental spillages, oils, odours, nuisance insects.		
Deterioration of hardstanding, or ponding water.		
Sediment accumulation at inlets.		
Sediment accumulation in filter drains.		
Evidence of litter accumulation in the system.		
Evidence of clogging or blockage of inlet, outlets and chambers.		
Accidental damage to the system.		
Evidence of cross connections or unauthorised inflows.		
Other comments		

Suitability of current and proposed future maintenance regime	
Suitability of current maintenance regime (circle as appropriate)	Continue as current Increase maintenance Decrease maintenance
Proposed date of next inspection	

Appendix B - Drainage Drawings

S104 GA Sheet 1 of 2	LM20066-DYSE-XX-ZZ-DR-C-1120	P02
S104 GA Sheet 2 of 2	LM20066-DYSE-XX-ZZ-DR-C-1121	P02
S104 Long Sections Surface Water	LM20066-DYSE-XX-ZZ-DR-C-1122	P01
S104 Long Sections Foul Water	LM20066-DYSE-XX-ZZ-DR-C-1123	P01
S104 Manhole Schedule Surface Water	LM20066-DYSE-XX-ZZ-DR-C-1124	P01
S104 Manhole Schedule Foul Water	LM20066-DYSE-XX-ZZ-DR-C-1125	P01
S104 Construction Details 1 of 2	LM20066-DYSE-XX-ZZ-DR-C-1126	P01
S104 Construction Details 2 of 2	LM20066-DYSE-XX-ZZ-DR-C-1127	P01
Plot Drainage Sheet 1 of 2	LM20066-DYSE-XX-ZZ-DR-C-1130	P01
Plot Drainage Sheet 2 of 2	LM20066-DYSE-XX-ZZ-DR-C-1131	P01
Drainage Construction Details Sheet 1 of 2	LM20066-DYSE-XX-ZZ-DR-C-1132	P01
Drainage Construction Details Sheet 2 of 2	LM20066-DYSE-XX-ZZ-DR-C-1133	P01