

Interim Drainage Management and Maintenance Plan



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Project	Sefter Farm East Pagham Rd, Bognor Regis, West Sussex
Project Number	24019

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1 Introduction

- 1.1 This Interim Drainage Management and Maintenance Plan has been prepared as the initial draft of the document that will become the Drainage Maintenance and Management Manual.
- 1.2 The Drainage Maintenance and Management Manual will be completed as part of the Operation and Maintenance Manual to be provided by the Principal Contractor on completion of construction.
- 1.3 The Drainage Maintenance and Management Manual will be handed over to the Site Operator on project completion.
- 1.4 The Drainage Maintenance and Management Manual will remain a live document and will be used to guide and record the maintenance and management of the surface water drainage system.

2 During Construction

- 2.1 Once appointed the Contractor will prepare a site specific method statement for the control of silt and other pollutants during construction. CIRIA Report C532, Control of water pollution from construction sites, provides further guidance on this.
- 2.2 The Contractor will maintain the proposed drainage system during construction and until the handing over of the site.

3 Surface Water Drainage System

3.1 Overview

- 3.1.1 The surface water drainage system has been designed as a Sustainable Urban Drainage System (SuDS)



- 3.1.2 The system has been designed to collect surface water from the roof of the new packhouse and discharge it to the existing surface water collection network for reuse within the existing site wide irrigation system.
- 3.1.3 The proposed hardstanding areas have been designed with a voided subbase providing storage which will discharge treated surface water at a restricted rate to the Pagham Rife via the existing onsite drainage system.

3.2 How the System Will Function

- 3.2.1 Surface water falling on the roof will be collected in gutters and discharged via a syphonic drainage system into the existing reservoir to the south of the site which forms a part of the site wide surface water irrigation network.
- 3.2.2 Surface water falling on the new hardstanding areas will be filtered through a voided subbase and discharged at a restricted rate to the existing conveyance channel to southwest of the site.
- 3.2.3 These systems will provide water quality improvement to ensure that at the point of discharge the surface water has received suitable pollution mitigation.

4 Schedule of Maintenance

- 4.1 Management of the drainage facilities will be undertaken by the Site Operator.
- 4.2 There are three categories of maintenance activities:

- **Regular maintenance**

Basic tasks undertaken on a frequent and predictable schedule, including vegetation management, litter and debris removal, and inspections.

- **Occasional maintenance**

Tasks that are likely to be required periodically, but on a much less frequent and predictable basis than the routine tasks (sediment removal is an example).

- **Remedial maintenance**

Intermittent tasks that may be required to rectify faults associated with the system. Where remedial work is found to be necessary, it is likely to be due to site-specific characteristics or unforeseen events, and as such timings are difficult to predict.

4.3 The following maintenance schedule details the typical tasks to be undertaken at different intervals.

Maintenance Schedule	Required Action	Frequency
Regular Maintenance	Manage vegetation and remove nuisance plants - aesthetics	As required
	Litter and debris removal - catchpits and conveyance channel	Monthly or as required
	Maintain conveyance Channel to ensure vegetation height remains at between 100mm and 150mm	Monthly or as required
	Cleaning of gutters and any filters on downpipes	3 Monthly
	Remove sediment and debris from silt trap chambers, channel drains and inlet chambers	6 monthly
	Surface water pipework - jetting / rodding	Every 2 years or as required
	Smart Sponge replacement	Annually
Corrective Maintenance	Remove debris / blockages to silt traps / channel drains / headwalls	As required
	Repairs to access chambers / manhole covers	As required
	Inspect inlet, outlet from downpipes, channel drains, conveyance channel, headwalls and gullies for blockages, standing water and clear	As required
	Where there is a build-up of silt in conveyance channel or at inlets of 50mm or more above the design level remove silt and spread on site. Undertake when ground is damp in autumn or early spring and transplant turf / overseed to original design levels	As required
Monitoring	Inspect silt traps and conveyance channel and note the rate sediment has accumulated	Monthly in the first year and then annually
	Determine need to replace Smart Sponge based on above monitoring	Annually

Indicative Schedule of Maintenance for the Proposed Drainage System

Component	Inspection Frequency					
	1 Month	3 Months	6 Months	Annually	After leaf fall in Autumn	2 Years
Gullies, Channels and Gutters		✓			✓	
Catchpits	✓				✓	
Surface and Foul Water Pipework						✓
Conveyance Channel		✓				
Flow Controls			✓			
Smart Sponge				✓		

Inspection Frequency Summary

5 Regular Maintenance Procedures

5.1 The following procedures provide a guide to the two most common maintenance items, jetting and silt removal, to be undertaken on site:

5.2 Jetting

5.2.1 Equipment Required:

- High-pressure water jetting equipment.
- Personal protective equipment (PPE) for operators.

5.2.2 Typical Procedure:

- Perform a pre-jetting inspection to assess the level of sedimentation.
- Insert the jetting hose into the pipe, starting from the upstream end.
- Gradually move the jetting hose downstream, ensuring the entire pipe or structure length is cleaned.
- Monitor the process to avoid any damage to the drainage infrastructure.
- Collect dislodged silt and debris at the downstream end using a vacuum or manual removal.

5.3 Silt Removal and Disposal

5.3.1 Equipment Required:

- Vacuum truck or manual removal tools.
- Containers for temporary storage of silt and debris.

5.3.2 Typical Procedure:

- Collect the dislodged silt and debris from the downstream end of pipe or structure.
- Transfer the collected material to the containers.
- Dispose of the collected silt and debris following local regulations and environmental guidelines.

6 Financing

6.1 The regular and corrective maintenance of all elements of the drainage system will be managed and funded by the Site Operator.

7 Health and Safety

7.1 Designers Residual Risks

- 7.1.1 There are no significant residual risks associated with the construction of the proposed surface or foul water drainage network beyond common site risks that would reasonably be anticipated by a competent Civil Engineering Contractor.

7.2 Construction Phase

- 7.2.1 The Principal Contractor will undertake a construction phase Health and Safety Plan for the site.
- 7.2.2 Prior to handover the Principal Contractor will undertake a review of maintenance activities required and prepare suitable Health and Safety documentation as part of the site hand over documents.

8 Design Life

- 8.1 The design life of the development is likely to exceed the design life of the components within the SuDS network. During the routine drainage inspections it may be determined that some components have reached the end of their functional life cycle.
- 8.2 Where possible repairs should be the first option considered however if repairs are unviable it will be necessary for the Site Operator to arrange for the replacement of the faulty component.

9 Emergency Plan

9.1 Potential flood and maintenance indicators:

- Manholes or inspections chambers overflowing
- Gullies overflowing or ponding
- Channel drains overflowing or ponding
- Other visual indicators of the drainage system not performing as it should

9.2 Should any of the items above occur then immediate action as outlined below should be undertaken:

- Inspect for blockages in the problem area
- Should the problem not be identified via an initial inspection the site operator should appoint a suitable drainage engineer to inspect and survey the system and jet any blockages
- Where it is suspected that there is a problem with the downstream drainage network the Owner or relevant statutory undertaker of that system should be alerted

9.3 Emergency Contact Details

9.3.1 Maintenance Team

TBC

10 Appended Documents

Approved Drainage Drawings and Construction Details (to be added once approved)

Pre Handover Inspection Checklist (to provided by Principal Contractor)

Maintenance Checklist (to provided by Principal Contractor at handover)

Maintenance Record Pro Forma (to provided by Principal Contractor at handover)