SuDS Drainage Maintenance & Management Plan

Rev A 13/11/23

Skywaves, Ivy Arch, Worthing, BN14 8BX

Client

Hampshire Homes
8 Chatmohr Estate
Hampshire, SO51 6AP
Ref: 12466/2.3
Date: 07/07/2023

Consulting Engineers

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A Proposed Drainage Layout

Issue	Issue date	Compiled	Checked
Preliminary Issue	7th July 2023	LT	NS
Rev A	13th Nov 2023	MW	NS

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1 Introduction

1.1 This report has been prepared for Hampshire Homes in relation to the premises at Skywaves, Ivy Arch, Worthing, BN15 8BX. No responsibility is accepted to any third party for all or part of this study in connection with this or any other development.

1.2 GTA Civils & Transport Limited was appointed by the client to provide a drainage maintenance and management report as requested by the Adur and Worthing Council in order to achieve Planning Approval at said property.

2 Summary Description of Drainage Systems

2.2 Existing: the pre-development Site comprises of a an office building, which is to be demolished.

2.3 The Application Proposal comprises of the demolition of the exiting office building to allow for the construction of a single block of apartments with associated parking.

2.4 Drainage design: the drainage layout drawings, by GTA Civils & Transport Ltd, are included in Appendix A.

2.5 The surface water drainage design is based on discharging attenuated surface water runoff to the existing combined drain located within the south of the site.

2.6 This is achieved by providing an attenuation tank serving the proposed building along the northeastern side of the site.

3 Ownership and Maintenance Responsibilities

3.1 Responsibility for the maintenance of the drainage system will be apportioned generally as follows:

- The developer will remain responsible for each drainage component until such time as it is handed over to the adopting authority, agent or end user.
- Individual property drainage will be cared for by the property landlord.
- The main piped foul sewer networks downstream of each individual property will be adopted by the sewerage authority.

3.2 The following sections set out schedules detailing the maintenance requirements for each of the main drainage items used within the scheme. The landlord will undertake the inspections and maintenance activities in accordance with these schedules.

3.3 Additional reference should be made to currently established best practice and guidance documents such as The SuDS Manual (CIRIA C753, 2015) and other resources available at the susdrain website (www.susdrain.org).

3.4 This document should be considered a live document. The frequency of maintenance intervals may need to be increased or decreased based on the observed performance of the drainage systems over time. Changes should be agreed with the drainage authority and recorded and dated in the DMP.

3.5 Important safety information is set out in the next section.

4 Health and Safety

4.1 All those responsible for and involved in the maintenance of the site drainage systems should be safety-conscious and comply with the relevant health and safety legislation. This includes:

- The Health and Safety at Work etc Act 1974
- The Management of Health and Safety at Work Regulations 1999
- The Workplace (Health, Safety and Welfare) Regulations 1992

4.2 The Estate Management Company is responsible for suitable risk assessment and management to ensure safe working conditions and practices. Measures to protect potential visitors also need to be considered.

4.3 Specialist contractors used should work to industry guidelines and be able to demonstrate safe working practices.

4.4 Employers have a duty to employees to inform them about the risks of their work environment and to decrease the risk as far as reasonably practicable. Appropriate personal protective equipment (PPE) should be provided and policies implemented based on risk assessment.

4.5 Operatives should be trained for working near water. Risks of contaminated water should be considered. Checking for open cuts and using nitrile gloves, waterproof plasters etc is advised.

4.6 Entry of pipes, chambers, tanks and culverts should be avoided. Work should be carried out from the surface using appropriate equipment. In the event that entry cannot be avoided to perform a critical task, the required safety training, protection measures and precautions must be implemented prior to entry. Lone working should never be attempted.

For further information refer to Section 36 of The SuDS Manual (CIRIA C753).

5 Schedule A – Sewers, Manholes, Gullies, Channel Drains

5.1 Regular inspection and maintenance is required to ensure the effective long-term operation of private drains, manholes, gullies & channel drains.

5.2 Prior to construction: a CCTV survey to be carried out on all receiving existing public sewer systems prior to connection with adopted sewers.

5.3 Post Completion: a CCTV survey to be carried out on all new and retained existing drainage systems and any downstream receiving systems, prior to connection with adopted sewers.

5.4 The report will be used to prove the integrity of the as-built drainage system prior to issue of practical completion certificate and will be handed over to the Client & Management Company for future reference.

5.5 Ongoing maintenance responsibility for all adopted sewers is by the sewerage authority and for adoptable highway drainage is by West Sussex Highways. All other private gullies and drainage is to be maintained by the Estate Management Company in shared areas and the homeowner within conveyed land. Operation and maintenance requirements for all sewers, manholes, gullies, and channel drains are described in the following table:

Schedule	Action	Frequency
Regular Maintenance	Inspect and identify any areas that are not operating correctly. If required, take remedial action. Common yard & car park & other hard standing areas to be swept clear of debris, to prevent possibility of blockages to the receiving drainage systems. Debris removal from gullies & channel drains (where may cause risks to performance). Lift and inspect receiving manholes to check for any blockages.	6 Monthly intervals. Monthly. 6 Monthly intervals, after autumn leaf fall, or as required based on specific observations. Monthly.
Remedial Actions	Repair any damaged gully or channel drain gratings. Replace / fix any loose channel drain covers.	As required. As required.
Monitoring	Carry out full CCTV survey to confirm ongoing integrity of all drains. Inspect all gullies and silt pits & drainage channels during the survey.	10-yearly intervals.

5.6 Where appropriate refer also to specialist drainage manufacturer's information and maintenance requirements.

5.7 In all instances, inspection and cleaning should be carried out only by a specialist contractor and in accordance with the guidelines given in `Safe Working in Sewers and at Sewage Works' published by National Joint Health and Safety Committee for the Water Services.

6 Schedule B – Cellular Storage Systems

6.1 Regular inspection and maintenance is required to ensure the effective long-term operation of below ground modular storage systems. Maintenance responsibility for systems will be for the English Rural Housing Association. Operation and maintenance requirements for cellular storage systems are described in the table below.

6.2 Cellular Storage Systems maintenance and monitoring requirements:

Schedule	Action	Frequency
Regular Maintenance	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.
	Remove sediment from pretreatment structures.	Annually, or as required.
Remedial Actions	Repair/rehabilitation of 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 and after large storms.
Control Chambers and Hydrobrakes	Check hydrobrake orifices are clear and retention tank door is closed. Check function of retention tank door and oil if necessary. Similarly, check outfalls and inlets of attenuation tanks to ensure pipes are clear and free-flowing.	First 2 years of occupation – Monthly Then annually

6.3 Sediments excavated from upstream pre-treatment devices that receive runoff from residential or standard road and roof areas are generally not toxic or hazardous material and can be safely disposed of by either land application or landfilling. However, consultation should take place with the environmental regulator to confirm appropriate protocols. Sediment testing may be required before sediment excavation to determine its classification and appropriate disposal methods.

7 Prevention of Pollution

Maintenance

7.1 It is the responsibility of the site owner to ensure the Drainage Infrastructure is maintained in accordance with this Drainage Infrastructure Maintenance Plan.

Contamination or Dilution of Spillage

7.2 The Environment Agency would prefer all spillages on any highway to be contained to prevent any downstream contamination. However, this cannot always be achieved, depending on the nature of the spillage. In all circumstances involving the spillage of substances on the highway it is important that the Environment Agency are notified as soon as possible so that they can provide advice and take appropriate action.

7.3 Prompt action following a spillage can prevent or reduce its effects, whilst inappropriate action may cause or worsen the pollution effects. In the event of a spillage on site it is the responsibility of the Management Company's staff to clear up any spillage before it enters the drainage system. The primary method of dealing with any spillage of Hydrocarbons should be to use sand to soak up the leak and prevent any Hydrocarbons entering the drainage system. Once sand has been contaminated it should not be washed into the drainage system but disposed of by a Licensed Contractor.

Environment Agency – Emergency Contact Number

6.4 In the event of a spillage the Environment Agency should be contacted to notify the event and seek advice. The Environment Agency Hotline is 0800 80 70 60 (Freephone 24hrs).

- End of Report -

Appendix A