



SUSTAINABLE DRAINAGE SYSTEM (SUDS) MANAGEMENT STRATEGY

PROJECT

PROPOSED CARE HOME, EXETER ROAD, TOPSHAM

PROJECT NUMBER

21 016

CLIENT

TOPSHAM CARE HOME LTD (c/o LANCER SCOTT CONSTRUCTION)

REPORT DATE

MARCH 2021

Contents:

1.0 INTRODUCTION

2.0 MAINTENANCE RESPONSIBILITIES

3.0 MAINTENANCE REGIME

4.0 APPENDIX A INSPECTION CHECKLIST

1. INTRODUCTION

This management strategy has been prepared by ARC Engineers on behalf of Topsham Care Home Ltd in respect of Planning Condition 16 of the planning permission granted 10th September 2020 and the operational requirements and functionality of the development whilst it is in use.

It should be borne in mind that the development is a fully functioning care home, operated and managed under a single point of ownership as part of the Cinnamon Luxury Care brand. It is important to understand this aspect differs considerable from a development where communal areas and external works maybe handed over to an independent management company which can quickly start to ignore their duties and responsibilities. In the circumstances of this development, Cinnamon Luxury Care fully understand their requirements for regular on-going maintenance, which is fundamental to providing an attractive living environment for their residents and guests.

2. SUDS PROVISION WITHIN THE DEVELOPMENT

The SUDS incorporated into this development are employed to;

- Reduce and manage surface water runoff.
- Improve the quality of water being discharged from the site.

The above provided for a design return period of one hundred years plus climate change, such that the development will not increase the risk of flooding to the site and its environs.

SUDS methods incorporated are;

- Permeable paving – Type C (No infiltration to ground)
- Geocellular system for attenuation.

This document outlines the long-term maintenance of the proposed surface water system and will make reference to the following documents, some of which provide further detail on the maintenance operations required:

- CIRIA Report C753 'The SUDS Manual', 2015
- CIRIA Report C625 'Model Agreements for Sustainable Water Management Systems', 2004
- Interpave, 'Permeable pavements: Guide to the Design, Construction and Maintenance of Concrete Block Permeable Pavements', ed. 4, 2006

3. MAINTENANCE RESPONSIBILITIES

Cinnamon Luxury Care will appoint a specific, named, Care home manager for the site as required under CQC legislation who will be responsible for all aspects of the operation of the site. To support the care home manager with general maintenance issues, a site based caretaker / maintenance operative will also be appointed. The duties of these directly employed members of staff will be to undertake general inspections of all aspects of the building, and to identify areas that need specialist contractors. In respect of the maintenance of external works and SUDS features, a term contractor will be employed for this specific work to ensure that all necessary Health and Safety requirements and method statements are in place.

It should also be noted that if the Flood and Water Management Act 2010 is ever fully implemented this allows a surface water drainage system to be vested to the SUDS approving body (SAB). This would be reviewed at the time of any implementation of the Act.

4. MAINTENANCE REGIME

The inspection of the SUDS features will be carried out by the site based maintenance operative.

This will include inspecting;

- All external gullies draining hard landscaping areas.
- Inspecting external Rain Water Pipe connections.
- Inspecting hard landscaping areas with permeable paving to ensure there is no vegetation growth or trapped debris in the gaps between pavements.
- Lifting the PPIC inspection covers to all silt traps in the car parking and access road area to determine when to instruct specialist contractor to clear them.

The following section describes the required maintenance for each feature in turn. The SUDS Maintenance requirements listed below should be reviewed after the first 5 years, with a view to agreeing a new regime for the ongoing maintenance.

Notwithstanding the routine inspections and maintenance requirements, after severe storm events all features shall be inspected to clear debris and repair damaged structures or features. Records of the maintenance carried out shall be prepared by the maintenance manager / team.

Should the maintenance be transferred at a later date to a public body, then the model agreement SUDS MA1 should be used, details of which can be found in the CIRIA guidance C625.

BELOW GROUND GEO CELLULAR STORAGE ATTENUATION AND CATCH PITS

Entering manholes / deep catch pits is only to be carried out by suitably experienced specialist with appropriate method statements and PPE.

Maintenance Schedule	Required Action	Typical Frequency
Regular Maintenance	Inspect and identify any areas that are not operating correctly. If required, take remedial action	Monthly for 3 months then annually
	Remove debris from the catchment surface (where it may cause risks to performance)	Monthly
	For systems where rainfall infiltrates into the tank from above, check surface of filter for blockage by sediment, algae or other matter; remove and replace surface infiltration medium as necessary	Annually
	Remove sediment from pre-treatment structures and/or internal forebays	Annually, or as required
Remedial Actions	Repair/rehabilitate inlets, outlets, 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
	Survey inside of tank for sediment build up and remove if necessary	Every 5 years or as required

4.0 APPENDIX A - INSPECTION CHECKLIST

**SUDS / EXTERNAL SURFACE WATER
DRAINAGE MAINTENANCE INSPECTION
CHECKLIST**



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**TOPSHAM CARE HOME
EXETER ROAD, EX3 OLX
Page 1 of 2**

Date of inspection		Details	Action Required (y/n)	Date Completed
Undertaken by				
Is there any evidence of erosion, channelling, ponding (where not desirable) or other poor hydraulic performance?				
Is there any evidence of accidental spillages, oils, poor water quality, odours or nuisance insects?				
Have health and safety risks been identified to either the public or maintenance operatives?				
Silt/Sediment Accumulation				
<p>Is there any sediment accumulation at inlets (or other defined accumulation zones such as the surface of filter drains or infiltration basins and within proprietary devices)?</p> <p>If yes, state depth (mm) and extent.</p> <p>Is removal required?</p> <p>If yes, state waste disposal requirements and confirm that all waste management requirements have been complied with (consult environmental regulator)</p>				
Is surface clogging visible potentially problematic where water has to soak into the underlying construction or ground (e.g. under drained swale or infiltration basin)?				
Does permeable or porous surfacing require sweeping to remove silt?				
Is there evidence of litter accumulation in the system? If yes, is blockage a risk?				
Is there any evidence of any other clogging or blockage of outlets or drainage paths?				
Is the vegetation condition satisfactory (density, weed growth, coverage, etc.)? (check against approved planning regime)				

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**TOPSHAM CARE HOME
EXETER ROAD, EX3 OLX
Page 2 of 2**

Does any part of the system require weeding, pruning or mowing? (check against maintenance frequency state in approved design)			
Is there any evidence of invasive species becoming established? If yes, state action required			
Are any check dams or weirs in good condition?			
Is there any evidence of any accidental damage to the system (eg wheel ruts)?			
Is there any evidence of cross connections or other unauthorised inflows?			
Is there any evidence of tampering with the flow control?			
Are there any other matters that could affect the performance of the system in relation to the design objectives for hydraulic, water quality, biodiversity and visual aspects?			
OTHER OBSERVATIONS			
Information appended (eg photos)			
Continue as current			
Increase maintenance			
Decrease maintenance			
Proposed date for next inspection			