



ENGINEERING

**SuDS Maintenance Plan
for the Proposed Development
of Gorringes Auction Rooms,
Garden Street, Lewes
BN7 1TJ**

Contents

- 1 SuDS at Garden Street, Lewes
- 2 Responsibilities of SuDS
- 3 Key Factors Considerations During Maintenance
- 4 Landscaping Maintenance – Summary
- 5 Maintenance Specification for SuDS

**SuDS Maintenance Plan
for the Proposed Development
of Gorringes Auction Rooms,
Garden Street, Lewes
BN7 1TJ**

1 SuDS at Garden Street, Lewes;

SUDS are engineered solutions that aim to mimic natural drainage processes. They help to reduce pollution of watercourses and localised flooding, as well as providing amenity benefit and biodiversity. The following lists of features are to be provided as part of the proposed development of land at Garden Street, Lewes:

- **Permeable surfaces** - Permeable surfacing will be used on all access areas, these allow rain water to percolate through the pervious surface into the voided construction below, this allows for cleaning, storage and controlled release.
- **Inspection Chambers** and rodding eyes are used on bends or where pipes come together. They allow cleaning of the system if necessary.
- **SuDS flow control structures** will be a Hydrobrake flow control system. This will be located within a manhole chamber so it is accessible and easy to maintain.

2 Responsibilities of SuDS at Garden Street, Lewes-

Communal SuDS

SuDS located in communal areas will be the responsibility of a management company set up to maintain all communal areas of the development.

Communal SuDS include the following:

- Hydrobrake Flow Control Systems
- Permeable paving on access areas

The management company will be funded via a service charge served to dwelling owners at the development.

3 Key Considerations for Maintenance at Garden Street, Lewes

- Undesirable plants – all efforts should be made to prevent drains becoming blocked and the growth of unintentional vegetation which could be detrimental to the intentional plant regime, biodiversity aims and the building fabric.
- Regular site attendance for litter collection, grass cutting and checking of inlets, outlets and control structures.
- Drain heads and outlets – all drainage points must be checked every year and cleared out if necessary to ensure optimum performance.
- **Avoid** use of weedkillers and pesticides to prevent chemical pollution.
- **Avoid** de-icing agents wherever possible to allow bio-remediation of pollutants in permeable surfaces.
- **Protect** all permeable, porous and infiltration surfaces from silt, sand and other fine particles.

4. Landscaping Maintenance – Summary -

	REGULAR MAINTENANCE	Frequency	Unit Rate	Total
1	LITTER MANAGEMENT			
1.1	Pick up litter in SuDs and Landscape areas and remove from site.	12 visits monthly		
2	GRASS MAINTENANCE - all cutting to wildlife piles.			
2.1	Mow all grass verges, paths and amenity at 35-50mm with 75mm max. Leaving grass in situ.	as required or monthly		
3	INLET AND OUTLETS			
3.1	Inspect monthly, remove silt from slab aprons and debris. Strim 1m round for access.	monthly visits		
4	HARD SURFACES			
4.1	Sweep all paving regularly. Sweep and suction brush permeable paving in autumn after leaf fall.	1 visit		
	OCCASIONAL TASKS			
5	INSPECTION AND CONTROL CHAMBERS			
5.1	Annual inspection, remove silt and check free flow.	1 visit		
6	SITE MANAGEMENT			
6.1	Excavate silt, stack and dry within 10m of the SuDS feature, but outside the design profile where water flows spread, rake and overseed.	As required		

5 Sustainable Drainage Maintenance Specification –

5.1 PERVIOUS SURFACES

Permeable Paving hardstanding with SuDs and is designed to allow rainfall to percolate immediately through the surface near to where the raindrop lands. The water flows into a specially prepared sub-base, where the voids between the stones act as a temporary reservoir. Maintenance of the pavement is carried out to ensure the infiltration of the paving is not compromised as follow;

- A visual inspection of the paving should be carried out on a regular basis. This will confirm the effectiveness of the agitation maintenance due to variations between sites and allow any refinement of the regular agitation activity if necessary.
- The paving should be agitated (ie - brushed, vacuumed, etc) at least twice a year. This is to ensure no vegetation of any sort is allowed to grow and develop in the joints. Ideally, this activity should be carried out in the spring and autumn seasons.
- The paving should be inspected after any heavy precipitation to ensure no displacement of any organic matter onto the surface of the pavement.
- Where non-infiltration systems have been employed, the inspection of the outfalls should be undertaken initially on a twice-yearly basis.
- Weed growth – when sedimentation occurs in areas of permeable paving then there is the potential for weed growth, this will typically occur where there are overhanging trees or soft landscaping slopes down on to the paving or in areas which do not receive over run from vehicles particularly frequently. Weeds can be removed from the surface through the application of weed killers. Glyphosate based weed killers are the most common for general purpose use, they are most effective on grasses and perennial weeds with non-woody stems. Weeds should be sprayed when they are actively growing so that the Glyphosate will go down to the root and kill the weed completely.

PERMEABLE AND POROUS SURFACES	
Regular Maintenance	Frequency
Brushing and vacuuming (standard cosmetic sweep over whole surface)	Paving - Twice a year, in spring and after autumn leaf fall, or reduced frequency as required, based on site specific observations of clogging or manufactures recommendations.
Occasional Tasks	Frequency
Stabilise and mow contributing adjacent areas	As Required
Removal of weeds or management using glyphosate applied directly to weeds by an applicator rather than spraying	As required – once per year on less frequently used pavements
Remedial Work	Frequency
Remediate any landscaping which, through vegetation maintenance or soil slip has been raised to within 50mm of the level of paving.	As Required
Remedial work to any depressions or rutting and cracked or broken blocks considered detrimental to the structural performance or a hazard to users	As Required
Rehabilitation of surface and upper substructure by remedial sweeping	Every 10 to 15 years or as required
Monitoring	
Initial inspection	Monthly for three months after installation
Inspect for evidence of poor operation and or weed growth – if required take remedial action	Three – monthly, 18 hours after large storm in first six months
Inspect silt accumulation rates and establish appropriate brushing frequencies	Annually
Monitor inspection chambers	Annually

5.4 CONTROLS AND INSPECTION CHAMBERS

- **SuDS flow control structures** – A Hydrobrake flow control will be provided at the development located at manhole PS6.
- **Inspection Chambers** and rodding eyes are used on bends or where pipes come together and allow cleaning of the system if necessary. They should be designed out of the system where possible.

CONTROLS AND INSPECTION CHAMBERS	
Regular Maintenance	Frequency
<p>surface control structures</p> <p>Inspect surface structures removing obstructions and silt as necessary. Check there is no physical damage. Strim vegetation 1m min. surround to structures and keep hard aprons free from silt and debris.</p>	<p>Monthly</p> <p>Monthly</p>
Inspection chambers and below ground control chambers	
<p>Remove cover and inspect ensuring water is flowing freely and that the exit route for water is unobstructed. Remove debris and silt. Undertake inspection after leaf fall in autumn .</p>	<p>Annually</p>
Occasional Maintenance	
Remedial Work	
<p>Unpack stone in basket features and unblock or repair and repack stone as design detail as necessary. Repair physical damage if necessary.</p>	<p>As required</p> <p>As required</p>

5.5 SPILLAGE – EMERGENCY ACTION

Most spillages on development sites are of compounds that do not pose a serious risk to the environment if they enter the drainage in a slow and controlled manner with time available for natural breakdown in a treatment system. Therefore, small spillages of oil, milk or other known organic substances should be removed where possible using soak mats as recommended by the Environment Agency with residual spillage allowed to bio-remediate in the drainage system.

In the event of a serious spillage, either by volume or of unknown or toxic compounds, then isolate the spillage with soil, turf or fabric and block outlet pipes from chamber(s) downstream of the spillage with a bung(s). (A bung for blocking pipes may be made by wrapping soil or turf in a plastic sheet or close woven fabric.)

Contact the Environment Agency immediately.