



**LOWER GRANGE FARM, MARKFIELD,
LEICESTERSHIRE**

SUDS MAINTENANCE STRATEGY

NOVEMBER 2024

REPORT REF: MFD02/11-24/01

Prepared By:

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1.0 THE SUDS PROPOSAL

- 1.1 The SUDS on the proposed development site are to consist of 3 no. attenuation basin/ponds, with permanent eco enhanced wet areas. The basin attenuates the contributions of site wide surface water as indicated on drawing MFD_09_810_01, before restricted flows discharge into the existing watercourse network running through the site.
- 1.2 The drainage design provides attenuation and flow control for all storm return periods up to and including the 100-year event plus a 40% allowance for climate change. The design life of this development is 100 years and is in accordance with residential development and stated within PP25.

2.0 DESIGN AND ADOPTION

- 2.1 This attenuation ponds will remain private and will be maintained by an appointed management company.
- 2.2 The remaining site drainage including flow control, outfall pipework and manhole chambers is to be adopted by Independent Water Networks Limited under a Section 104 Agreement who will maintain it throughout the lifetime of the development.
- 2.3 The responsibility of all SuDS features and drainage infrastructure will be the responsibility of Jelson Limited until such a time that it has been transferred to the relevant adopting authorities.
- 2.4 Contact details for maintenance pre adoption:
- **Jelson Limited**
Customer Care Team – customercare@jelson.co.uk – 0116 266 1541
- 2.5 Contact details for maintenance post-adoption:
- **Management Company**
TrustGreen Management Company – customer.care@trustgreen.com - 01829 708 457
 - **Independent Water Networks Limited (IWNL)**
Waste Services – www.iwnl.co.uk/contact-us/ – 02920 028711
 - **Leicestershire County Council Highways**
<https://www.leicestershire.gov.uk/roads-and-travel/road-maintenance/report-a-road-problem>

3.0 MAINTENANCE

3.1 The below table is a typical maintenance regime for such assets, which is based on good practice and general current procedures:

Activity	Indicative frequency	Typical tasks	Maintenance Liability
Routine/regular maintenance	Monthly	litter picking	Management Company
		grass cutting (including ditch/watercourse banks)	Management Company
		inspection of inlets, outlets and control structures.	Independent Water Networks Limited
Occasional maintenance	Annually	silt control around adopted components	Independent Water Networks Limited
		silt control around private components	Management Company
		silt removal from adopted highway road gullies	Leicestershire County Council
Remedial maintenance	As required (tasks to repair problems due to damage or vandalism)	inlet/outlet repair	Independent Water Networks Limited
		erosion repairs	Management Company
		reinstatement following pollution	Management Company
		removal of silt build up	Management Company

*additional detailed maintenance requirements can be found in Appendix B

4.0 RELIABILITY

4.1 The reliability of SUDS is critically dependent on the quality of the design and construction, in particular the management of silt.

4.2 The proposed development SUDS features have been designed to accommodate flows up to the 100yr +40% climate change allowance.

4.3 We understand that this design mitigates future flooding risks to the development and also provides an abundant whole life cycle design life in line with modern planning requirements.

5.0 HEALTH AND SAFETY

- 5.1 The design guide used for these features (CIRIA's SUDS Manual and DeFRA's Technical Standards for Sustainable Drainage Systems) incorporates health and safety implications of these SUDS components. Also the proposals are incorporated within the Construction, Design and Management Regulations 2007, which requires hazards to be removed by good design wherever possible rather than providing mitigation to manage risk.
- 5.2 Those responsible for the maintenance and management of SUDS should take appropriate health and safety precautions for activities and risk assessments should be undertaken.



	Drainage Feature	Responsible for Maintenance	Specification
	S104 surface water sewer, chambers and headwalls	Independent Water Networks	Clay/Concrete pipework, Concrete/Brick chambers, Concrete headwalls
	S104 foul water sewer and chambers	Independent Water Networks	Clay/Concrete pipework, Concrete chambers
	S38 highway drains/gullies	Leicestershire County Council	Clay pipework, Concrete chambers, Concrete gully pots
	Existing foul water sewer	Severn Trent Water	As per existing
	Existing surface water sewer	Severn Trent Water	As per existing
	Proposed Highway Culverts	Leicestershire County Council	Concrete Box Culverts, Concrete headwalls
	Existing Ditches/Watercourses	Management Company	Open Watercourses, Ditches
	Proposed SuDs Features	Management Company	Landscaped Ponds, 150mm Topsoil with Grass Seed

NOTE: ALL INFORMATION IS
PRELIMINARY AND SUBJECT TO
DETAILED DESIGN

GENERAL NOTES

1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH THE SITE LAYOUT PROPOSALS DRAWN BY ARCHIAL ARCHITECTS AND THE TOPOGRAPHICAL SURVEY UNDERTAKEN BY PHOENIX SURVEY SERVICES LTD.
2. PRIOR TO COMMENCEMENT OF DRAINAGE WORKS THE CONTRACTOR MUST CHECK THE EXACT LINE OF THE MANHOLE/OUTFALLS. DISCREPANCIES MUST BE REPORTED TO THE ENGINEER IMMEDIATELY.
3. PIPE LAINE READINGS MUST NOT BE ISSUED FROM DESIGN DRAWINGS. INVERT LEVELS MUST BE CHECKED AT EACH CONSTRUCTED MANHOLE AND LASER READINGS ADJUSTED TO SUIT MINOR DISCREPANCIES. ANY DISCREPANCIES SHOULD BE REPORTED TO THE ENGINEER PRIOR TO COMMENCEMENT OF THE NEXT PIPE RUN.
4. ANY DISCREPANCIES, OF WHATEVER NATURE, MUST BE REPORTED TO THE ENGINEER PRIOR TO COMMENCEMENT OR CONTINUATION OF ANY FURTHER WORKS.
5. ALL PRIVATE DRAINAGE WORKS TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE DRAINAGE REGULATIONS 2000, 'PART H', 'DRAINAGE AND WASTE DISPOSAL'. (1ST APRIL 2000)
6. UNLESS OTHERWISE STATED, ALL PRIVATE DRAINAGE RUNS SERVING TWO OR MORE PROPERTIES TO BE 1600 N/A POLYSEWER. PRIVATE DRAINAGE RUNS SERVING SINGULAR PROPERTIES TO BE 1100 N/A POLYSEWER UNLESS OTHERWISE STATED. MORE THAN ONE PIPE MUST NOT BE LARGER FLATTER THAN 1 IN 80 AND 1600 PIPES NO FLATTER THAN 1 IN 100. RUNS TO BE NO STEEPER THAN 1 IN 15 WITHOUT FIRST CONSULTING THE ENGINEER.
7. ALL PRIVATE BUILDING DRAINAGE TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
8. PIPES WHICH RUN ADJACENT TO BUILDINGS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH PART H, CLAUSES 2.23 TO 2.25 AND DIAGRAM 8.
9. ALL PRIVATE MANHOLES AND INSPECTION CHAMBERS SITUATED IN AREAS SUBJECT TO VEHICULAR LOADING HAVE CLASS B125 COVERS AND FRAMES TO BS EN124 AND THOSE NOT SUBJECT TO VEHICULAR LOADING HAVE CLASS A15 COVERS AND FRAMES.
10. ALL DRAINS LOCATED IN THE VICINITY OF EXISTING OR PROPOSED TREES TO BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF NHBC PRACTICE NOTE 3.
11. IF IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE ALL BUILDING DRAINAGE IS CORRECTLY INSTALLED CORRECTED AND ALL MANHOLE COVERS ARE SUITABLY FIXED TO THE FRAME.
12. IN THE EVENT EXISTING LAND DRAINAGE IS ENCOUNTERED ON SITE THE ENGINEER MUST BE CONTACTED IMMEDIATELY. THE DRAINAGE MUST BE RE-CONNECTED AT A SUITABLE LOCATION.
13. ALL PROPOSED LEVELS ON THIS DEVELOPMENT WILL BE SUBJECT TO PLANNING CONSENT/AGREEMENT. ANY DEVIATION FROM PROPOSALS MUST BE DISCUSSED WITH THE ENGINEER AND ARCHITECT PRIOR TO CONSTRUCTION.
14. WHERE DRIVEWAYS FALL TOWARD GARDEN DOORS SUITABLE DRAINAGE MUST BE PROVIDED. STEEL LINEAR DRAINAGE CHANNELS OR SIMILAR PREFERRED.
15. DRIVEWAYS TO BE NO STEEPER THAN 1 IN 12 FOR THE FIRST 5 METRES BEYOND THE HIGHWAY OR AS DICTATED BY THE LOCAL HIGHWAY AUTHORITY.
16. NO LOOSE BOUND AGGREGATE TO BE USED WITHIN 5 METRES OF THE HIGHWAY OR AS DICTATED BY THE LOCAL HIGHWAY AUTHORITY.
17. GARDEN GRADIENTS TO BE A MAXIMUM OF 1 IN 10. BANKING WORKS MAY BE USED IN SELECTED AREAS WITH SUITABLE CONSTRUCTION MATERIAL. PLEASE REFER TO ENGINEERING LAYOUTS FOR FURTHER INFORMATION.
18. CONCRETE PIPE SURROUND TO BE USED ON ALL PIPEWORK WITH LESS THAN 1.2 METRES OF COVER.
19. ALL CONCRETE AND CEMENT PRODUCTS TO USE SULPHATE RESISTING CEMENT.
20. IT IS THE CLIENT/CONTRACTORS RESPONSIBILITY TO ENSURE ALL BURIED SERVICES ARE LOCATED PRIOR TO CONSTRUCTION AND IMMEDIATELY BEFORE COMMENCING ANY EXCAVATION WORKS ON SITE.
21. ALL ADAPTABLE DRAINAGE WORKS TO BE INSPECTED ON SITE BY THE WATER AUTHORITY INSPECTOR. IN THE EVENT OF CONFLICT BETWEEN THIS DRAWING AND THE SEWERS FOR ADOPTION 6TH EDITION THE LATER WILL TAKE PRECEDENCE.
22. PRIVATE BUILDING DRAINAGE WORKS TO BE INSPECTED ON SITE BY NHBC/DRAINAGE BUILDING INSPECTOR. IN THE EVENT OF CONFLICT BETWEEN THIS DRAWING AND THE SEWERS FOR ADOPTION 6TH EDITION THE LATER WILL TAKE PRECEDENCE. ANY DISCREPANCIES SHOULD THEY DEViate FROM WHAT IS SHOWN ON THIS PLAN.
23. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXECUTE THE WORKS AT ALL TIMES IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE HEALTH AND SAFETY AT WORK ACT 1974, AND CDM REGULATIONS 2007. THE CONTRACTOR WILL BE DEEMED TO HAVE ALLOWED FOR FULL COMPLIANCE, INCLUDING FULL LIAISON WITH THE CDM CO-ORDINATOR, WITHIN THEIR RATES.

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REV	DESCRIPTION							DATE		BY	
PURPOSE TITLE:											
PROPOSED RESIDENTIAL DEVELOPMENT LOWER GRANGE FARM MARKFIELD LEICESTERSHIRE											
DRAWING TITLE:											
SuDs AND DRAINAGE MAINTENANCE PLAN											
DRAWING SCALE:											
1:1000 @ A1											
DRAWN BY:						CHECKED BY:					
MH						-					
DRAWING STATUS:						DRAWING DATE:					
CONSTRUCTION						12/04/2024					
DRAWING NUMBER:						DRAWING REVISION:					
MFD02_09_810_01						-					

TECHNICAL DEPARTMENT



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Drainage Maintenance Schedule

Schedule	Feature	Required Action	Frequency
Regular Maintenance	Rainwater Harvesting	Inspection of the Tank for Debris and Sediment Build-Up, Inlets/ Outlets/ Withdrawal Devices, Overflow Areas, Pumps and Filters.	Annually (and following poor performance)
		Cleaning of Tank, Inlets, Outlets, Gutters, Withdrawal Devices and Roof Drain Filters of Silts and other Debris.	Annually (and following poor performance).
	Green Roofs	Remove Debris and Litter to Prevent Clogging of Inlet Drains and Interference with Plant Growth.	Six Monthly and Annually or as required
		During Establishment (i.e. year one), Replace Dead Plants as required.	Monthly (but usually responsibility of manufacturer)
		Post Establishment, Replace Dead Plants as Required (where >5% of coverage).	Annually (In autumn)
		Remove Fallen Leaves and Debris from Deciduous Plant Foliage.	Six Monthly or as required
		Remove Nuisance and Invasive Vegetation, Including Weeds.	Six Monthly or as required
		Mow Grasses, Prune Shrubs and Manage Other Planting (if appropriate) as Required – Clippings Should be Removed and not Allowed to Accumulate.	Six Monthly or as required
	Infiltration Systems	Remove Litter, Debris and Trash.	Monthly
		Cut Grass – for Landscaped Areas and Access Routes.	Monthly (during growing season) or as required
		Cut Grass – Meadow Grass in and Around Basin.	Half yearly: spring (before nesting season) and autumn
		Manage Other Vegetation and Remove Nuisance Plants.	Monthly at start, then as required
	Filter Strips	Remove Litter and Debris.	Monthly (or as required)
		Cut Grass – To Retain Grass Height Within Specified Design Range.	Monthly (during growing season), or as required
		Manage Other Vegetation and Remove Nuisance Plants.	Monthly (at start, then as required)
	Filter Drains	Remove Litter (inc leaf litter) and Debris from Filter Drain Surface, Access Chambers and Pre-Treatment Devices.	Monthly (or as required)
		Inspect Filter Drain Surface, Inlet/ Outlet Pipework and Control Systems for Blockages, Clogging, Standing Water and Structural Damage.	Monthly

Drainage Maintenance Schedule

		Inspect Pre-Treatment Systems, Inlets and Perforated Pipework for Silt Accumulation, and Establish Appropriate Silt Removal Frequencies.	Six monthly
		Remove Sediment from Pre-Treatment Devices.	Six monthly, or as required
	Swales	Remove Litter and Debris	Monthly, or as required
		Cut Grass – to Retain Grass Height Within Specified Design Range.	Monthly (during growing season), or as required
		Manage Other Vegetation and Remove Nuisance Plants.	Monthly at start, then as required
		Inspect Inlets, Outlets and Overflows for Blockages, and Clear if Required.	Monthly
		Inspect Infiltration Surfaces for Ponding, Compaction, Silt Accumulation, Record Areas Where Water is Ponding for > 48 Hours.	Monthly, or when required
		Inspect Vegetation Coverage.	Monthly for 6 months, quarterly for 2 years, then half yearly
		Inspect Inlets and Facility Surface for Silt Accumulation, Establish Appropriate Silt Removal Frequencies.	Half yearly
	Bioretention	Remove Litter and Surface Debris and Weeds.	Quarterly (or more frequently for tidiness or aesthetic reasons)
		Replace any Plants, to Maintain Planting Density.	As required
		Remove Sediment, Litter and Debris Build-Up from Around Inlets or from Forebays.	Quarterly to biannually
	Trees	Remove Litter and Debris.	Monthly (or as required)
		Manage Other Vegetation and Remove Nuisance Plants.	Monthly (at start, then as required)
		Inspect Inlets and Outlets.	Inspect monthly
	Permeable Pavements	Brushing and Vacuuming (standard cosmetic sweep over whole surface).	Once a year, after autumn leaf fall, or reduced frequency as required, based on site-specific observations of clogging or manufacturers recommendations –

Drainage Maintenance Schedule

			pay attention to areas where water runs onto pervious surface from adjacent impermeable areas as this area is most likely to collect the most sediment
	Attenuation Storage Tanks	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
	Detention Basins	Remove Litter and Debris.	Monthly
		Cut Grass – for Spillways and Access Routes.	Monthly (during growing season), or as required
		Cut Grass – Meadow Grass in and Around Basin.	Half yearly (spring – before nesting season, and autumn)
		Manage Other Vegetation and Remove Nuisance Plants.	Monthly (at start, then as required)
		Inspect Outlets, Inlets and Overflows for Blockages and Clear if Required.	Monthly
		Inspect Banksides, Structures, Pipework etc for Evidence of Physical Damage.	Monthly
		Inspect Inlets and Facility Surface for Silt Accumulation. Establish Appropriate Silt Removal Frequencies.	Monthly (for first year), then annually or as required
		Check any Penstocks and Other Mechanical Devices.	Annually
		Tidy All Dead Growth Before Start of Growing Season.	Annually
		Remove Sediment from Inlets, Outlets and Forebay.	Annually (or as required)
		Manage Wetland Plants in Outlet Pool – Where Provided.	Annually
	Ponds and Wetlands	Remove Litter and Debris.	Monthly (or as required)

Drainage Maintenance Schedule

		Cut the Grass – Public Areas.	Monthly (during growing season)
		Cut the Meadow Grass.	Half yearly (spring, before nesting season, and autumn)
		Inspect Marginal and Bankside Vegetation and Remove Nuisance Plants (for First 3 Years).	Monthly (at start then as required)
		Inspect Inlets, Outlets, Banksides, Structures, Pipework etc for Evidence of Blockage and/ or Physical Damage.	Monthly
		Inspect Water Body for Signs of Poor Water Quality.	Monthly (May – October)
		Inspect Silt Accumulation Rates un any Forebay and in Main Body of the Pond and Establish Appropriate Removal Frequencies; Undertake Contamination Testing Once Some Build-Up Has Occurred, to Inform Management and Disposal Options.	Half yearly
		Check Any Mechanical Devices, e.g. Penstocks.	Half yearly
		Hand Cut Submerged and Emergent Aquatic Plants (at minimum of 1.0m above pond base; include max 25% of pond surface).	Annually
		Remove 25% of Bank Vegetation from Waters Edge to a Minimum of 1m Above Water Level.	Annually
		Tidy All Dead Growth (scrub clearance) Before Start of Growing Season (note: tree maintenance is usually part of overall landscape management contract).	Annually
		Remove Sediment and Planting from one Quadrant of the Main Body of Ponds Without Sediment Forebays.	Every 1 -5 years, or as required
		Remove Sediment from any Forebay.	Annually

Schedule	Feature	Required Action	Frequency
Occasional Maintenance	Rainwater Harvesting	Cleaning and/or replacement of any Filters.	Three monthly (or as required)
	Infiltration Systems	Reseed Areas of Poor Vegetation Growth.	Annually or as required
		Prune and Trim Trees and Remove Cuttings.	As required

Drainage Maintenance Schedule

		Remove Sediment from Pre-Treatment System when 50% Full.	As required
	Filter Strips	Reseed Areas of Poor Vegetation Growth; Alter Plant Types to Better Suit Conditions, if required.	As required or if bare soil is exposed over
	Filter Drains	Remove or Control Tree Roots Where They are Encroaching the Sides of the Filter Drain, Using Recommended Methods (e.g. NJUG, 2007 or BS 3998:2010).	As required
		At Locations with High Pollution Loads, Remove Surface Geotextile and Replace, and Wash or Replace Overlaying Filter Medium.	Five yearly, or as required
		Clear Perforated Pipework of Blockages.	As required
	Bioretention	Infill any Holes or Scour in the Filter Medium, Improve Erosion Protection if Required.	As required
		Repair Minor Accumulations of Silt by Raking Away Surface Mulch, Scarifying Surface of Medium and Replacing Mulch.	As required
	Trees	Check Tree Health and Manage Tree Appropriately.	Annually
		Remove Silt Build-Up from Inlets and Surface and Replace Mulch as Necessary.	Annually, or as required
		Water	As required
	Permeable Pavements	Stabilise and Mow Contributing and Adjacent Areas.	As required
		Removal of Weeds or Management Using Glyphosate Applied Directly into the Weeds by an Application Rather Than Spraying.	As required – once per year on less frequently used pavements
	Detention Basins	Reseed Areas if Poor Vegetation Growth.	As required
		Prune and Trim any Trees and Remove Cuttings.	Every 2 years, or as required
		Remove Sediment from Inlets, Outlets, Forebay and Main Bain when Required.	Every 5 years, or as required (likely to be minimal requirements where effective upstream source control is provided).
	Ponds and Wetlands	Remove Sediment from the Main Body of Big Ponds when Pool Volume is Reduced by 20%.	With effective pre-treatment, this will only be required rarely, e.g. every 25-50 years

Drainage Maintenance Schedule

Schedule	Feature	Required Action	Frequency
Routine Maintenance	Proprietary Treatment System	Remove Litter and Debris and Inspect for Sediment, Oil and Grease Accumulation.	Six Monthly
		Change the Filter Media.	As recommended by manufacturer
		Remove Sediment, Oil, Grease and Floatables.	As necessary – indicated by system inspections or immediately following significant spill

Schedule	Feature	Required Action	Frequency
Remedial Actions	Rainwater Harvesting	Repair of Overflow Erosion Damage or Damage to Tank.	As required
		Pump Repairs.	As required
	Green Roofs	If Erosion Channels are Evident, These Should be Stabilised with Extra Soil Substrate Similar to the Original Material, and Sources of Erosion Damage Should be Identified and Controlled.	As required
		If Drain Inlet Has Settled, Cracked or Moved Investigate and Repair as Appropriate.	As required
	Infiltration Systems	Repair Erosion or other Damage by Reseeding or Re-Turfing.	As required
		Realign the Rip-Rap.	As required
		Repair or Rehabilitate Inlets, Outlets and Overflows.	As required
		Rehabilitate Infiltration Surface using Scarifying and Spiking Techniques if Performance Deteriorates.	As required.
		Relevel Uneven Surfaces and Reinstall Design Levels.	As required
	Proprietary Treatment System	Replace Malfunctioning Parts or Structures.	As required
	Filter Strips	Repair Erosion or Other Damage by Re-Turfing or Re-Seeding.	As required
		Relevels Uneven Surfaces and Reinstall Design Levels.	As required
		Scarify and Spike Topsoil to Improve Infiltration Performance, Break Up Silt	As required

Drainage Maintenance Schedule

		Deposits and Prevent Compaction of the Soil Surface.	
		Remove Build Up of Sediment on Upstream Gravel Trench, Flow Spreader or at Top of Filter Strip.	As required
		Remove and Dispose of Oils or Petrol Residues Using Safe Standard Practices.	As required
	Swales	Repair Erosion or Other Damage by Re-Turfing or Reseeding.	As required
		Relevel Uneven Surfaces and Reinstall Design Levels.	As required
		Scarify and Spike Topsoil Layer to Improve Infiltration Performance, Break Up Silt Deposits and Prevent Compaction of the Soil Surface.	As required
		Remove Build-Up of Sediment on Upstream Gravel Trench, Flow Spreader or at Top of Filter Strip.	As required
		Remove and Dispose of Oils or Petrol Residues Using Safe Standard Practices.	As required
	Bioretention	Remove and Replace Filter Medium and Vegetation Above.	As required but likely to be > 20 years
	Permeable Pavements	Remediate Any Landscaping which, Through Vegetation Maintenance or Soil Slip, has been Raised to within 50mm of the Level of the Paving.	As required
		Remedial Work to any Depressions, Rutting and Cracked or Broken Blocks Considered Detrimental to the Structural Performance or a Hazard to Users, and Replace Lost Jointing Material.	As required
		Rehabilitation of Surface and Upper Substructure by Remedial Sweeping.	Every 10 to 15 years or as required (if infiltration performance is reduced due to significant clogging)
	Attenuation Storage Tanks	Repair/ Rehabilitate Inlets, Outlets, Overflows and Vents.	As required
	Detention Basins	Repair Erosion or Other Damage by Reseeding or Re-Turfing.	As required
		Realignment of Rip-Rap.	As required
		Repair/ Rehabilitation of Inlets, Outlets and Overflows.	As required
		Relevel Uneven Surfaces and Reinstall Design Levels.	As required
		Repair Erosion or Other Damage.	As required

Drainage Maintenance Schedule

	Ponds and Wetlands	Replant, where necessary.	As required
		Aerate Pond When Signs of Eutrophication are Detected.	As required
		Realign Rip-Rap or Repair Other Damage.	As required
		Repair / Rehabilitate Inlets, Outlets and Overflows.	As required

Schedule	Feature	Required Action	Frequency
Regular Inspections	Green Roofs	Inspect all components including soil Substrate, Vegetation, Drains, Irrigation Systems, Membranes and Roof Structure for Proper Operation, Integrity of Waterproofing and Structural Stability.	Annually and after severe storms
		Inspect Soil Substrate for Evidence of Erosion Channels and Identify any Sediment Sources.	Annually and after severe storms
		Inspect Drain Inlets to Ensure Un-Restricted Run-off from the Drainage Layer to the Conveyance or Roof Drain System.	Annually and after severe storms
		Inspect Underside of Roof for Evidence of Leakage.	Annually and after severe storms
	Bioretention	Inspect Infiltration Surfaces for Silting and Ponding, Record De-Watering Time of the Facility and Assess Standing Water Levels in Underdrain (if appropriate) to Determine if Maintenance is Necessary.	Quarterly
		Check Operation of Underdrains by Inspection of Flows After Rain.	Annually
		Assess Plants for Disease Infection, Poor Growth, Invasive Species etc and Replace as Necessary.	Quarterly
		Inspect Inlets and Outlets for Blockages.	Quarterly

Schedule	Feature	Required Action	Frequency
Monitoring	Infiltration Systems	Inspect Inlets, Outlets and Overflows for Blockages and Clear if Required.	Monthly
		Inspect Banksides, Structures, Pipework, etc for Evidence of Physical Damage.	Monthly
		Inspect Inlets and Pre-Treatment Systems for Silt Accumulation; Establish Appropriate Silt Removal Frequencies.	Half Yearly
		Inspect Infiltration Surfaces for Compaction and Ponding.	Monthly

Drainage Maintenance Schedule

	Proprietary Treatment System	Inspect for Evidence of Poor Operation.	Six monthly
	Attenuation Storage Tanks	Survey Inside of Tank for Sediment Build-Up and Remove if Necessary.	Every 5 years or as required
		Inspect/ Check all Inlets, Outlets, Vents and Overflows to Ensure that they are in Good Condition and Operating as Designed.	Annually
	Filter Strips	Inspect Silt Accumulation Rates and Establish Appropriate Removal Frequencies.	Half yearly
	Permeable Pavements	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, 48 hours after large storms in first six months
		Inspect Silt Accumulation Rates and Establish Appropriate Brushing Frequencies.	Annually
		Monitor Inspection Chambers.	Annually