SuDS MAINTENANCE AND MANAGEMENT SCHEDULE

21-069 Former Neon Club, Jarrow

Prepared for: Tandem Construction Ltd

Date: March 2023

Revision	Description	By	Checked	Date
P1	First Issue	DR	MH	22/03/23
P2	Client amendments to introduction	DR	MH	26/05/23

Beckwith & Hanlon Consulting Engineers Limited
Registered Office: 2 Riverside Studios, Amethyst Road, Newcastle Business Park, Newcastle NE4 7YL Tel: 0191 603 1533
Reg in England: 13525167
www.beckwithandhanlon.com

Former Neon Club, Jarrow – SuDS Maintenance & Schedule

Places for People and their nominated management company are responsible for the below maintenance regime associated with the development at the former Neon Club, Jarrow. Tandem Construction Ltd will be responsible from completion of construction to the point of connection to the existing adopted drainage system. This schedule is to be adopted and developed by the appointed management company for drainage elements under their responsibility.

The Schedules detailed below are in accordance with Table 32.1 of the CIRIA SuDS Manual (2015).

The following drainage items are to be considered:

PIPEWORK, MANHOLES AND CHANNELS

The following maintenance items are recommended, for any pipework and manholes associated with the SuDS systems:

- Local repair or local replacement of damaged pipes or other structures in order to maintain the functioning of the sewer.
- Cleaning and removal of sediments, obstructions etc. to restore hydraulic capacity.
- Jetting/vacuum of sewers to be undertaken as often as necessary to remove silts and/or ordinary debris.
- In the event that any extraordinary issues are encountered during an inspection, further information may be required such as a CCTV survey report.
- Maintenance to be undertaken on a six-monthly schedule.
- All manhole covers should be lifted and the manholes visually inspected for silt, debris and signs of blockages within the drainage system. Check manhole covers and frames for damage and ensure correctly bolted together. This should be undertaken on a six monthly basis.
- Should any debris or blockages be detected, the manholes should be cleaned along with associated pipe runs using a high-pressure jetting unit. On completion, a CCTV surveyed should be undertaken to verify/identify that no further remedial works are required.
- To avoid damaging the pipe, PSI pressures need to be verified before jetting of plastic twin wall sewers. Cleaning of drainage systems may require the temporary sealing of the system and careful collection of the effluent for disposal off site.

Maintenance Schedule – Proprietary Drainage	
Drainage Element – Pipework and Manholes	
Required Action	**Typical Frequency**
	Regular
Inspection of inlets and outlets. Ensure they are clear and flows are not impeded.	Bi-annually and in addition following any significant storm event.
Inspection of manholes, gullies, sumps, channels and drains for debris and signs of blockages.	Quarterly
Inspection of manhole covers and frames for damage and ensure correctly bolted together.	Bi-annually
Inspection of water quality. Ensure water quality is free of algae, oils, or odours.	Bi-annually
Visual inspection for inefficiencies - such as surface water building up at the inlet.	Quarterly
Inspection of gullies, inlet/outlet pipework and control systems for blockages, clogging, standing water and structural damage.	Monthly for 1 year following construction completion, thereafter bi-annually.
	Regular Maintenance
Remove litter and debris from gully and drain surface.	Bi-monthly
Remove or control tree roots where they are encroaching the sides of drainage apparatus, using recommended methods (e.g. NJUG, 2007 or BS 3998:2010).	Bi-annually

CONTROL MANHOLE

It is essential that the control manhole is checked regularly and especially after (significant) rainfall events, in order to maintain the effectiveness of the control. The control manhole will be maintained in accordance with the maintenance plan specified by the manufacturer and it is recommended that the hydrobrake is inspected alongside pipework on site. A summary of the typical maintenance schedule is provided below.

Maintenance Schedule – Proprietary Drainage	
Drainage Element – Control Manhole	
Required Action	**Typical Frequency**
	Routine Maintenance
Inspect hydrobrake and inlet to ensure they are clear of blockages	Monthly for three months after installation. Biannually thereafter.

ATTENUATION CRATES

Regular inspection and maintenance are required to ensure the effective long-term operation of below-ground attenuation systems.

The attenuation crates will be maintained in accordance with advice provided by the manufacturer, while the responsibility for this maintenance will be placed with the landowner/tenant or appointed management company.

The maintenance tasks of the attenuation tanks generally include the inspection of the inlets, outlets, air vents and overflows to identify silt build up and/or structural damage to determine if remedial actions are required.

Maintenance Schedule – Proprietary Drainage	
Drainage Element – Attenuation Crate	
Required Action	**Typical Frequency**
	Regular
Inspect and identify any areas that are not operating correctly. If required, take remedial action.	Monthly for 3 months, then annually
Inspect/check all inlets, outlets, vents and overflows to ensure that they are in good condition and operating as designed.	Annually
	Regular Maintenance
Remove debris from the catchment surface (where it may cause risks to performance).	Monthly
Remove sediment from pre-treatment structures and / or internal fore bays.	Annually
Repair/rehabilitate inlets, outlet, overflows and vents.	As required
Survey inside of crate for sediment build-up and remove and clean if necessary.	Annually

The above schedule is based upon '*Table 21.3 Operation and maintenance requirements for attenuation storage tanks – CIRIA SuDS Manual 2015; Chapter 21: Attenuation Storage Tanks'*.

PERMEABLE BLOCK PAVING

Maintenance Schedule – Proprietary Drainage	
Drainage Element – Permeable Block Paving	
Required Action	**Typical Frequency**
Brushing and vacuuming (standard cosmetic sweep over whole surface).	**Regular** Annually, after autumn leaf fall, or reduced frequency as required, based on site specific observations of clogging or manufacturers recommendations – pay particular attention to areas where water runs onto pervious surface from adjacent impermeable areas as this area is most likely to collect the most sediment.
Stabilise and mow contributing and adjacent areas. Removal of weeds or management using glyphospate applied directly into the weeds by an applicator rather than spraying.	**Occasional Maintenance** As required. As required - Annually
Remediate any landscaping which, through vegetation maintenance or soil slip, has been raised to within 50mm of the level of the paving. Remedial work to any depressions, rutting and cracked or broken blocks considered detrimental to the structural performance or a hazard to users, and replace jointing material. Rehabilitation of surface and upper substructure by remedial sweeping.	**Remedial Actions** As required. As required. Every 10 to 15 years or as required if infiltration performance is reduced due to significant clogging.
Initial inspection Inspect for evidence of poor operation and/or weed growth – if required, take remedial action Inspect silt accumulation rates and establish appropriate brushing frequencies. Monitor inspection chambers.	**Monitoring** Monthly for three months after installation. Three-monthly, 48 hours after large storms in the first 6 months. Annually Annually

The above schedule is based upon '*Table 20.15 Operations and maintenance requirements for pervious pavements – CIRIA SuDS Manual 2015; Chapter 20: Pervious pavements'*.