Sustainable Drainage Systems Ltd

Operation and Maintenance Manual

PROJECT: Storage World, Ambrose Street

CONTRACTOR: Marnic Groundwork Limited

Sustainable Drainage Systems Limited
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Sustainable Drainage Systems Ltd

Operation and Maintenance Manual

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1. Scope of Works / System Description

1.1. Basis of Design

Sustainable Drainage Systems (SDS) works were carried out in line with design information and requirements supplied by Marnic Groundwork Limited

1.2. Purpose of the Installation

To supply and install a stormwater system as required and fulfilling the drainage requirements at Storage World, Ambrose Street

1.3. Installation Description

SDS have installed 1 no attenuation tank.

1.3.1. SDS GEOlight Attenuation Tank

Installation Started: 12/09/25
Installation Completed: 19/09/25
Tank Dimensions: 18x9.5x1.125
Tank Volume: 192.375m^3
Location: Please refer to Drawing Drainage Layout for further information.

The excavation was dug (by others) to the dimensions of the tank plus an extra 0.5m to the length and width to allow for working space during installation. After excavation the hole was blinded to form a level ground with either sand or shingle (by others).

The excavation base was then lined with GEOtextile with additional allowance for the lining to be brought up and over the sides of the tank and allow for it to be completely encased on completion of the build.

Low density polyethylene (LLDPE) GEOmembrane was laid on top of the GEOtextile to cover the base and sides of the excavation. The membrane was sealed using an airtight twin edge weld using a hot air type welder (110v). For information on the welding, please refer to document Membrane Welded Joint Information Sheet.

GEOlight blocks were moved into position and installed following a layout plan. During installation a trench allowance was made to lay slotted twinwall distribution pipe through the tank with a length of solid pipe attached at each end of the slotted distribution pipe to allow for the tank system to be attached to the upstream and downstream stormwater manholes (by others). Pre-manufactured top hat seals were welded to the GEOmembrane at the entry and exit points of the solid pipe at each end of the tank to ensure a watertight seal. On each vertical face of the GEOlight blocks along the internal trench for the distribution pipe, additional GEOtextile was installed to prevent internal clogging of the lateral channels in the GEOlight blocks.

All pipe positions and levels within the system were confirmed and approved (by others) prior to the installation of pipe bedding being laid within the trench (by others).

After the tank was built to the layout drawing, GEOvent was laid along the length of the tank before the GEOmembrane was pulled up and over the sides of the tanks to enclose and secure the GEOlight blocks where a panel of GEOmembrane was welded to the top of the tank to form a watertight seal of the tank.

Once the tank was complete, the additional allowance of GEOtextile lining the excavation was pulled up and over the sides of the tanks to completely encase the tank. Backfilling around and over the tank was then completed (by others).

The installation method above is as detailed in the Method Statement

On completion, as detailed in the Method Statement, the attenuation tank was signed off by SDS and a client representative on site using the Sign Off QA Sheet.

For all datasheet information relating to specific materials used manufacturers' details in Section 7.

2. Operating and Fault Finding Routines

2.1. Operating Procedures

Once installed this system is entirely inert and thus has no applicable operating procedures

2.2. Fault Finding Routines

Once installed this system is not a product that will develop faults over time

3. Schedule of Materials Used

Attenuation Tank

Item Ref	Model Number	Supplier	Item Type	Description	Location
GEOlight	HG400	SDS	GEOlight block	Lightweight Polyvinyl Chloride (PVC) honeycomb modular block	Attenuation Tank
GEOvent	25SW.NW9-M.CE	ABG	Fildrain	GEOcomposite vent	Attenuation Tank
GEOtextile	Bontec NW9	Bonar Ltd	Bontec NW	Thermally bonded nonwoven GEOtextile	Attenuation Tank
GEOmembrane	Ultraflex Smooth	GSE Environmental	Waterproof Membrane	Smooth linear low density (LLDPE) GEOmembrane	Attenuation Tank
Top Hats	Ultraflex Smooth	GSE Environmental	Waterproof Membrane	Smooth linear low density (LLDPE) GEOmembrane Pipe Penetration Seal	Attenuation Tank
Pipe	JFC CorriPipe Twinwall	JFC Plastics Limited	Slotted Pipe	High-Density Polyethylene	Attenuation Tank
Pipe	JFC CorriPipe Twinwall	JFC Plastics Limited	Solid Pipe	High-Density Polyethylene	Attenuation Tank
Couplers	JFC CorriPipe Twinwall	JFC Plastics Limited	Coupling Collars	Black polypropylene	Attenuation Tank
T Pieces	JFC CorriPipe Twinwall	JFC Plastics Limited	Solid Pipe	High-Density Polyethylene	Attenuation Tank

4. Planned Maintenance

4.1. Planned Maintenance Procedure

There are no specific steps for planned maintenance; however, it is recommended that the stormwater tank inspection chambers, including the stormwater drainage distribution pipes, are checked periodically in conjunction with general maintenance of the underground pipe network
Please refer to the document GEOlight Maintenance for further clarification

5. Safety Procedures

5.1. CoSHH Data Sheets

None of the materials used in this installation require reference to CoSHH

5.2. Risk Assessments

Maintenance of this installation does not pose any major risk and therefore has no applicable risk assessment requirements

5.3. Disposal

None of the materials used in this installation require specialist disposal

6. Spares

6.1. Spares & Lubricants Issued to the Client at Handover

No spares were issued to the client at handover

6.2. Recommended Spares / Lubricants for the Client to Hold

It is not recommended that the client hold any spares as they are not required for this installation

6.3. General Spares & Lubricants Lists

There are no general spares lists available for these works

7. Manufacturers / Suppliers Details

7.1. Sustainable Drainage Systems Limited

MANUFACTURER/ SUPPLIER	ADDRESS	CONTACT DETAILS	TOTAL No. OF PAGES
Sustainable Drainage Systems	Clearwater House Castlemills Biddisham Somerset BS26 2RE	Tel: 01934 751303 e-mail: info@sdslimited.com	12
EQUIPMENT REF/ MODEL	**PUBLICATION DETAILS**		**NO. OF PAGES**
GEOlight	GEOlight Brochure		8
GEOlight	GEOlight Datasheet		2
GEOlight	GEOlight Maintenance		1
GEOmembrane	Membrane Welded Joint Information Sheet		1

7.2. ABG Limited

MANUFACTURER/ SUPPLIER	ADDRESS	CONTACT DETAILS	TOTAL No. OF PAGES
ABG Limited	E7 Meltham Mills Road Meltham Yorkshire HD9 4DS	Tel: 01484 852096 e-mail: geo@abgltd.com	1
EQUIPMENT REF/ MODEL	**PUBLICATION DETAILS**		**NO. OF PAGES**
GEOvent	ABG Fildrain 25SW.NW8-M.CE Datasheet		1

7.3. BONAR Limited

MANUFACTURER/ SUPPLIER	ADDRESS	CONTACT DETAILS	TOTAL No. OF PAGES
BONAR Limited	Unit 28, Bergen Way Sutton Fields Industrial Estate (West) Hull HU7 0YQ	Tel: 01482 863777 e-mail: info@bonar.com	1
EQUIPMENT REF/ MODEL	**PUBLICATION DETAILS**		**NO. OF PAGES**
GEOtextile	Bontec NW - Needle Punched and Thermally Bonded Nonwoven Datasheet		1

7.4. GSE Environmental (UK Office)

MANUFACTURER/ SUPPLIER	ADDRESS		TOTAL No. OF PAGES
GSE Environmental	49C Fordham Road Soham Cambridge CB7 5AH	[redacted]	1
EQUIPMENT REF/ MODEL	**PUBLICATION DETAILS**		**NO. OF PAGES**
GSE GEOmembrane	GSE Ultraflex Smooth Geomembrane Datasheet		1

7.5. JFC Plastics Limited

MANUFACTURER/ SUPPLIER	ADDRESS	CONTACT DETAILS	TOTAL No. OF PAGES
JFC Plastics Limited,	Unit 6 Goldicote Business Park,Ettington,Nr Stratford Upon Avon,Warks CV37 7NB.	Tel: + 44 1928 583 391 e-mail: infouk@jfccivils.com	1
EQUIPMENT REF/ MODEL	**PUBLICATION DETAILS**		**NO. OF PAGES**
CorriPipe	JFC CorriPipe Datasheet		9