

Method Statement for SuDS System (Attenuation)

Fleurie Nursery Lake Lane, Barnham, PO22 0AL

For

Rev – P1

Planning Application No Y/9/25/DOC

Reference C2904

Date 10th March 2025

1. Method Statement

2. Scope of Works

The scope includes:

- Excavation and site preparation
- Installation of a ballast layer beneath the tank
- Groundwater management during construction
- Installation of a geocellular attenuation system
- Application of an impermeable liner and protective measures
- Backfilling and reinstatement

3. Materials and Equipment

4. Materials

- Geocellular attenuation crates (Polypipe Polystorm or equivalent)
- Ballast material: Reinforced concrete slab and compacted granular material (Type 1 or Type 3)
- Impermeable liner (HDPE geomembrane or equivalent)
- Protective geotextile fleece (above and below liner)
- Filter geotextile for drainage layers
- Catchpit chambers for pre-filtration

5. Equipment

- Excavators and dumpers
- Dewatering pumps
- Compaction equipment (vibratory roller/plate compactor)
- Concrete mixer and formwork for ballast slab

6. Methodology

6.1. Pre-Construction Preparation

- Conduct a pre-construction survey and mark out the attenuation tank location.
- Assess site conditions, including groundwater levels and soil stability.
- Install temporary site drainage and dewatering pumps if groundwater is encountered.

6.2. Excavation and Groundwater Management

- Excavate the area to the required depth, allowing for the ballast layer beneath the attenuation tank.
- If groundwater is encountered, dewatering pumps will be used to maintain a dry working area. A sump pit will be installed at the lowest point for water collection and discharge.
- Stabilise excavation side slopes using trench boxes or shoring where required.
- If a reinforced concrete ballast slab is required, excavate an additional 150-200mm below the designed attenuation tank base level.

6.3. Installation of Reinforced Concrete Ballast Layer Beneath Attenuation Tank

- Install formwork to contain the concrete slab.

- Lay reinforcement mesh (A393 steel mesh or equivalent) within the slab area.
- Pour a 150-200mm thick reinforced concrete slab to act as ballast, ensuring full coverage beneath the attenuation tank.
- Allow a minimum curing period of 48 hours before proceeding with tank installation.
- Install a protective geotextile fleece over the concrete slab before placing the liner.

6.4. Installation of Impermeable Liner and Protection Layers

- Lay the impermeable HDPE liner over the protective fleece, extending beyond the excavation for secure sealing.
- Weld or tape all liner joints to ensure full water tightness.
- Wrap the geocellular crates fully with the impermeable liner, ensuring all penetrations (pipes) are properly sealed.

6.5. Backfilling and Surface Reinstatement

- Surround the attenuation tank with selected granular backfill, ensuring no sharp materials come into contact with the liner.
- Compact the backfill in layers (150mm per lift) to prevent voids and settlement.
- Reinstatement the surface finish, such as permeable paving, asphalt, or soft landscaping.

7. Health and Safety Considerations

- Ensure excavation support is in place for deep excavations.
- Implement confined space procedures if required.
- Use PPE, including high-visibility clothing, gloves, and helmets.
- Monitor weather conditions to prevent work in unsafe conditions.

Polypipe installation guidance is also attached to the rear of this statement.