

## APPENDIX G PROPOSED SUDS IMPLEMENTATION PLAN

### 1. Project Overview

- **Project Name:** 32 Ferndale Crescent
- **Location:** Uxbridge, Middlesex UB8 2AX
- **Client:** Mr Darrell DeSouza
- **Start Date:** 01/10/2024
- **Completion Date:** 30/12/2024

### 2. Site Preparation

- **Site Clearance:** 01/10/2024 – 07/10/2024 (1 wk)

**Vegetation Removal:** Clear existing vegetation, trees, and shrubs from areas where SUDS components will be installed. Retain vegetation in non-construction areas to preserve habitat and minimize erosion.

**Debris Removal:** Remove debris, litter, and any obstacles that may interfere with construction activities. Ensure proper disposal or recycling of cleared materials.

**Tree Protection:** Install protective barriers around trees and vegetation that will be preserved. This prevents damage during construction.

- **Topsoil Stripping and Storage**

**Topsoil Removal:** Strip the topsoil from areas designated for construction. Store it in designated areas for later use in landscaping and re-vegetation.

**Stockpile Management:** Create topsoil stockpiles away from construction traffic and watercourses to prevent contamination. Cover stockpiles with geotextile fabric to minimize erosion and runoff.

### **3. Site Surveying and Marking** 08/10/2024 – 11/10/2024 (4 days)

- **Surveying:** Conduct a measurement survey to confirm the locations, size and elevations of proposed SUDS features.
- **Marking Out:** Mark out the boundaries of construction areas, including locations for rainwater harvesting and rain garden. Clearly delineate areas to prevent accidental disturbance.

### **4. Access Management** 11/10/2024 – 15/10/2024 (5 days)

- **Temporary Access Roads:** Construct temporary access roads for construction vehicles and equipment if required. Use permeable materials where possible to reduce runoff.
- **Stabilized Entrance:** Create a stabilized construction entrance to minimize the tracking of mud and debris onto public roads.
- **Traffic Management Plan:** Develop a traffic management plan to control vehicle movement, ensuring minimal disruption to the site and surrounding areas.

### **5. Site Drainage Management** 15/10/2024 – 20/10/2024 (6 days)

- **Temporary Drainage Systems:** Implement temporary drainage solutions to manage surface water during construction. This could include temporary ditches, channels, or pumps.
- **Preventing Waterlogging:** Ensure that the site remains free from waterlogging by maintaining adequate drainage until the permanent SUDS features are operational.

### **6. Site Security and Safety** 17/10/2024 – 21/10/2024 (5 days)

**Fencing:** Erect secure fencing around the construction site to prevent unauthorized access and ensure safety.

**Signage:** Place clear signage indicating construction zones, hazards, and access points. Include safety warnings and information on PPE requirements.

**Site Office and Welfare Facilities:** Set up a welfare facility for workers, including restrooms, break areas, and first aid.

## 7. Environmental Protection Measures 22/10/2024 – 31/10/2024 (10 days)

- **Pollution Prevention:** Implement measures to prevent pollution, such as spill kits, bunded fuel storage, and designated refuelling areas.
- **Wildlife Protection:** Identify any protected species or habitats on-site. Implement measures to protect wildlife, such as creating buffer zones or scheduling work outside of breeding seasons.
- **Noise and Dust Control:** Employ techniques to control dust and noise, such as water sprays for dust suppression and noise barriers or working hour restrictions.

## 8. Stakeholder Communication 17/10/2024 – 21/10/2024 (5 days)

- **Neighbourhood Notifications:** Inform nearby residents and businesses about the construction schedule, potential disruptions, and safety measures in place.
- **Local Authority Liaison:** Maintain regular communication with local authorities to ensure compliance with regulations and address any concerns.

## 9. Construction 01/11/2024 – 20/11/2024 (20 days)

The main activities include: site set up, earthwork/excavation, installation of SuDS components (rain water tank and rain garden), installation of rainwater tank, connect to downpipes ensuring that the tank is securely anchored and plumed for overflow, install fittings/flow control devices, replace top soil, re-vegetation and planting ensuring that soil is properly graded and compacted to support plant growth. Site clean-up and removal of temporary facilities.

## 10. Post-Construction Monitoring 20/11/2024 – 30/12/2024 (40 days)

Implement a short-term monitoring plan to assess the performance of the SUDS immediately after construction, checking for any issues that need to be addressed.

## 4. SUDS Techniques

- **Infiltration Systems:**
  - **Soakaways:** Install underground structures filled with porous material to collect and gradually infiltrate water into the ground.
  - **Infiltration Trenches:** Design linear trenches filled with gravel to facilitate water infiltration.
- **Filtration Systems:**
  - **Swales:** Implement shallow, vegetated channels to slow down surface water flow and filter out pollutants.
  - **Filter Strips:** Create vegetated areas that treat runoff from impermeable surfaces before it reaches watercourses.
- **Detention Systems:**
  - **Detention Basins:** Design areas to temporarily store runoff during heavy rainfall and release it slowly.
  - **Ponds and Wetlands:** Develop ponds and constructed wetlands to provide long-term storage and improve water quality.
- **Permeable Surfaces:**
  - **Permeable Pavements:** Install pavements that allow water to percolate through the surface, reducing runoff.
  - **Green Roofs:** Design roofs with vegetation to absorb rainfall and reduce runoff from buildings.
- **Rainwater Harvesting:**
  - **Rainwater Tanks:** Integrate systems to collect and store rainwater for non-potable uses.

## 5. Construction Plan

- **Phasing:** Outline the phases of construction, prioritizing critical drainage areas to be completed first.

- **Construction Methods:** Detail the specific construction techniques, ensuring minimal environmental disruption.
- **Material Sourcing:** Use sustainable materials and local sourcing where possible to reduce the carbon footprint.
- **Health and Safety:** Implement a health and safety plan that addresses risks specific to drainage construction.
- **Site Access:** Plan for construction site access, including the management of traffic and equipment.

## 6. Monitoring and Maintenance

- **Monitoring Plan:** Establish a monitoring regime to regularly check the performance of SUDS components.
- **Maintenance Schedule:** Develop a maintenance schedule to ensure that all SUDS elements are functioning effectively.
  - **Routine Maintenance:** Regular activities like grass cutting, litter removal, and sediment management.
  - **Corrective Maintenance:** Actions to restore SUDS components to their original design conditions.
- **Inspections:** Conduct periodic inspections to identify any issues such as blockages, erosion, or plant die-off.
- **Community Involvement:** Engage the local community in maintaining and monitoring SUDS features, such as adopting a pond or green space.

## 7. Cost Estimation and Budgeting

- **Initial Costs:** Provide a detailed cost breakdown for the design, construction, and implementation of the SUDS.
- **Long-term Costs:** Estimate the ongoing costs for monitoring, maintenance, and potential future upgrades.
- **Contingency Plan:** Allocate a contingency budget to cover unforeseen costs during the project.

## 8. Regulatory Compliance

- **Planning Permissions:** Ensure all necessary planning permissions are obtained before construction begins.

- **Environmental Regulations:** Comply with local and national environmental regulations and water quality standards.
- **Stakeholder Engagement:** Engage with stakeholders, including local authorities, environmental agencies, and the community, to ensure the project meets all legal and social expectations.

## 9. Final Reporting and Handover

- **Final Inspection:** Conduct a final inspection to ensure all SUDS elements are completed according to the design.
- **Handover Documentation:** Provide detailed documentation, including as-built drawings, operation manuals, and maintenance guides to the client.
- **Training:** Offer training sessions for the client's maintenance team to ensure they can manage the system effectively.
- **Post-Implementation Review:** Schedule a review after one year to assess the system's performance and make any necessary adjustments.