



Stormwater Operation and Maintenance Plan

ENGINEERED TREE PITS

Regular inspection and maintenance are necessary to preserve long-term functionality of Stormwater Control Measures “SCMs” per the original design intent. This Plan outlines the Town of Chapel Hill requirements for regular inspection and maintenance of Engineered Tree Pits SCMs which include Filterra and Silva Cells. The Owner as defined in the Agreement shall keep a copy of this Stormwater Operations and Maintenance (O&M) Plan, any applicable proprietary manufacturer’s O&M Plan, the SCM Inspection and Maintenance Log, and a copy of the approved As-Built Plans in a known set location and made available to the Town of Chapel Hill upon request.

Annual inspections shall be performed by a qualified licensed Professional Engineer or Landscape Architect. Routine maintenance and inspection shall be performed by a qualified professional with NCSU Stormwater Inspection and Maintenance Certification or similar certification.

The qualified professional shall maintain a **SCM Inspection and Maintenance Log** and make available to the Town of Chapel Hill upon request. All inspections shall be recorded in the log according to the frequency in the Inspection and Maintenance Table (Table 1 below) and within 24 hours after storm events that exceed 1.0 inch of rainfall. Any deficit SCM elements noted during inspection shall be recorded in the log and immediately corrected, repaired, or replaced. All routine and corrective/emergency maintenance activities shall be recorded in the log. The log template can be found at the Town of Chapel Hill Stormwater Control Measures [website](#).

An **Annual Inspection and Maintenance Report** shall be submitted to the Town of Chapel Hill Stormwater Department. The report shall detail the status of the SCM and maintenance performed as outlined in the [SCM Inspection Report Guidelines](#). A copy of the annual report shall be submitted to the Town of Chapel Hill Stormwater Management Division beginning one year after issuance of the Certificate of Occupancy.

REQUIRED INSPECTION AND MAINTENANCE TASKS FOR ENGINEERED TREE PITS

NOTE: The following inspection and maintenance table is not an exhaustive list of inspection and maintenance tasks. It is the responsibility of the professional inspecting the facility to perform comprehensive maintenance for the SCM to be operational.

Table 1: Inspection and Maintenance Provisions for Engineered Tree Pits

FREQUENCY OF INSPECTIONS	MAINTENANCE ACTIVITIES
Upon completion of construction	<ul style="list-style-type: none"> • Watering is needed twice a week for the tree establishment and any vegetated contributing area for up to 2 months, depending on rainfall.
Twice a Year	<ul style="list-style-type: none"> • Temporarily set aside the tree grate and erosion control stones to remove debris, trash, and sediment on the surface and in the inlet • Check any incoming or distribution pipes for obstructions or clogging and remove any accumulated grit, leaves, and debris. A jet stream may be needed to flush the pipes. • Examine plant's health and replace if necessary. Contact manufacturer for advice. • Prune the tree. Activity should be performed by a landscape professional per the guidance of a certified arborist. • Remove weeds growing on the surface. Avoid using herbicides and pesticides. • Cover bare spots on the surface and replenish as needed evenly across the unit to a depth of 3 inches. • Check the energy dissipation practice at the inlet and repair or restore the practice to match the original design.
As needed (Typical Problems)	<p>Structural integrity</p> <ul style="list-style-type: none"> • Replace or repair any cracked, separated or damaged inlet pipes, outfalls, or other structural elements. <p>Functionality</p> <ul style="list-style-type: none"> • Sediment accumulation <ul style="list-style-type: none"> ○ Ensure that all contributing areas are stabilized and any roof downspout are filtered before draining into the system. • Drainage issues <ul style="list-style-type: none"> ○ If water is present in the observation well more than 3 days after a storm event, clean out the underdrain. If this activity does not solve the problem, consult a professional. ○ If ponding is observed on the surface more than 24 hours after a storm event, remove accumulated sediment from of media bed and dispose of it in a location that will not impact a SCM or stream. Add bioretention media per design standards to bring it to the level shown on the plans. If the problem persists, contact a professional. • Tree health <ul style="list-style-type: none"> ○ Diagnose cause of problem (e.g. mower damage, vandal damage, animal damage, over or under-watering, pest, or soil health) and remedy. ○ If girdling of the roots or mulch and soil is found on the root collar, clean off soil or mulch and remove girdling roots taking care to minimize damage to other roots. <p>For additional information, contact the Town at Chapel Hill Stormwater Management at 919-969-7246 (RAIN).</p>