



Stormwater Operation and Maintenance Plan

GRASS SWALES

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 Grass Swale SCMs. The Owner as defined in the Agreement shall keep a copy of this Stormwater Operations and Maintenance 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 GRASS SWALES

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 Grass Swales

FREQUENCY OF INSPECTIONS	MAINTENANCE ACTIVITIES
Upon completion of construction	<ul style="list-style-type: none"> • Watering is needed twice a week until the grass become established (commonly 6-8 weeks), depending on rainfall.
Once a quarter	<ul style="list-style-type: none"> • Mow grass surface areas to a height of approximately six to eight inches and remove grass clippings. • Inspect for ponding and bare or eroding areas and make adjustments (i.e. regrade and plant ground cover) as necessary. • Remove leaves, trash and debris within the swale and dispose off-site. • Pull out weeds or invasives preferably by hand.
Annually	<ul style="list-style-type: none"> • Remediate bare soils by scarifying the surface, amending with topsoil, and/or replanting with sod or reseeding. Any planting or seeding mixtures should be consistent with the vegetation present in the grass swale.
As needed (Typical Problems)	<p>Functionality</p> <ul style="list-style-type: none"> • If there are eroding areas, the repair should match the causes. Insufficient vegetative cover requires re-sodding or seeding. Higher than anticipated flow velocities requires check dams to slow the flow. • If erosive gullies are occurring, regrade the soil to remove the gully, plant a ground cover, and water until it is established. • Sediment Accumulation <ul style="list-style-type: none"> ○ Maintain stable ground cover in the drainage area. ○ Sweep or vacuum sediment on pavement in the contributing drainage area. ○ If sediment covers the grass at the bottom of the swale, remove sediment and dispose properly. Re-sod if necessary. • If the grass swales suffers from dead or diseased plants or overgrown with invasive species, evaluate the source of the problem: soils, hydrology, species, or plant disease. <ul style="list-style-type: none"> ○ Remediate the problem by selecting new grass species or implementing an eradication plan for invasives. ○ Ensure appropriate plant maintenance is occurring. ○ A one-time fertilizer application to establish ground cover is permissible if a soil test indicates it is necessary. No portion of the dry detention system shall be fertilized after the initial fertilization that is required to establish the vegetation. <p>For additional information or if damage has occurred at the outlet which effects the receiving water, contact the Town at Chapel Hill Stormwater Management at 919-969-7246 (RAIN).</p>