

# SOAKAGE TRENCH SCM DESIGN CHECKLIST

**Stormwater Management Division  
c/o Development Services Department**

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Telephone (919) 996-3773

## I. PROJECT INFORMATION

Project Name: \_\_\_\_\_ Phase: \_\_\_\_\_  
 Project Address: \_\_\_\_\_ Disturbed Area (sf): \_\_\_\_\_  
 PIN: \_\_\_\_\_ Case #: \_\_\_\_\_ Submittal Date: \_\_\_\_\_  
 Previous Permit numbers (if applicable): \_\_\_\_\_  
 Zoning District: \_\_\_\_\_  
 Legal Name of Owner: \_\_\_\_\_  
 Owner Contact: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Owner Address: \_\_\_\_\_  
 Design Contact Person: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Design Contact Email: \_\_\_\_\_  
 The regulatory drainage basin in which the site is located: \_\_\_\_\_  
 The water supply watershed in which the site is located: \_\_\_\_\_

Function of Facility [check all that apply]:	
<input type="checkbox"/>	Nutrient (Total Nitrogen) Reduction
<input type="checkbox"/>	Green Stormwater Infrastructure
<input type="checkbox"/>	TSS Reduction
<input type="checkbox"/>	Peak Flow Rate Attenuation
<input type="checkbox"/>	<input type="checkbox"/> 1-Year event
<input type="checkbox"/>	<input type="checkbox"/> 10-Year event
<input type="checkbox"/>	<input type="checkbox"/> 100-Year event
<input type="checkbox"/>	<input type="checkbox"/> Other [ _____ ]
<input type="checkbox"/>	<input type="checkbox"/> Other [ _____ ]

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- II. **SUBMITTAL REQUIREMENTS** - See COR Stormwater Management Design Manual Chapter 5 for additional guidance. This completed checklist shall be submitted to the City of Raleigh with any proposed Soakage Trench. All files shall also be submitted electronically via CD or flash drive.

Routed flows and water surface elevations (WSE) at SCM (as applicable):			
Storm Event	Inflow	Outflow	WSE
1-Year			
10-Year			
100-Year			
____-Year			
Peak flow rates at immediate point of analysis to which the SCM drains:			
Condition	1-year	10-year	____-year
Pre-development			
Post-development			

General Design Criteria	
<input type="checkbox"/>	<b>Sizing:</b> The design volume of the SCM accounts for the runoff at full build-out from all surfaces draining to it (calculations provided in Stormwater Development Analysis).
<input type="checkbox"/>	Design Storm Volume: _____ cf
<input type="checkbox"/>	<b>Clean Out After Construction:</b> SCM impacted by sedimentation and erosion control during the construction phase shall be cleaned out and converted to its approved design state.
<input type="checkbox"/>	<b>Maintenance Access:</b> SCM has been provided with adequate access per City standards.
<input type="checkbox"/>	<b>Easements (except for SCMs located on single family residential lots):</b> Includes maintenance access, entire SCM footprint, and an additional 10 ft or more around the SCM.
<input type="checkbox"/>	<b>Single Family Residential Lots:</b> Plats for residential lots that contain an SCM shall include the location of SCM, typical detail of SCM, and note that the SCM on the property is required to meet stormwater regulations and that the property owner may be subject to enforcement actions if the SCM is removed, relocated, or altered without prior approval.
<input type="checkbox"/>	<b>Operation and Maintenance (O&amp;M) Agreement.</b>
<input type="checkbox"/>	<b>Operation and Maintenance (O&amp;M) Plan.</b>
<input type="checkbox"/>	<i>Operation and Maintenance (O&amp;M) Manual Submittal Checklist.</i>

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Specific Soakage Trench Criteria	
<input type="checkbox"/>	<b>Drainage Area:</b> A maximum of 10,000 sf of impervious drains to the trench.
<input type="checkbox"/>	<b>Trench Specifications:</b> The soakage trench has a minimum length of 20 feet, width of 2.5 feet, and depth of 1.5 feet.
<input type="checkbox"/>	The trench is located at least 10 feet from building foundations and property lines.
<input type="checkbox"/>	The trench has been constructed in native, uncompacted soils.
<input type="checkbox"/>	<b>Seasonal High Water Table (SHWT) Requirements:</b> The minimum separation between the bottom of the trench and the SHWT or any impervious layer is 5 feet.
<input type="checkbox"/>	<b>Pre-treatment (as applicable):</b> A pretreatment mechanism has been installed upstream of the perforated pipe (e.g. silt trap, etc.).
<input type="checkbox"/>	<b>Infiltration Rate:</b> The infiltration rate at the trench base is at least 2 inches per hour.
<input type="checkbox"/>	There is a minimum of 1 foot of head to promote infiltration.
<input type="checkbox"/>	The trench infiltrates the entire depth of design storm without overflow.
<input type="checkbox"/>	<b>Trench Media Requirements:</b> All media specifications are satisfied. Reference Section 5.6.1 of the Raleigh Stormwater Management Guidance Manual for more information.
<input type="checkbox"/>	Pore space of the fill material is 30%, with vertical infiltration only.
<input type="checkbox"/>	A minimum of 12 inches of washed rock underlies the soil layer, with a layer of geotextile fabric between.
<input type="checkbox"/>	The bottom of the trench contains at least 18 inches of medium sand, covered with a layer of filter fabric.
<input type="checkbox"/>	<b>Piping Requirements:</b> All piping specifications are satisfied. Reference Section 5.6.1 of the Raleigh Stormwater Management Guidance Manual for more information.

The SCM Plan Submittal shall also include the following elements:	
<input type="checkbox"/>	A plan view of the SCM, with grading and appropriate critical spot shots, has been provided.
<input type="checkbox"/>	A profile (showing all relevant component elevations and WSEs) through the riser, dam, and outlet structure/outfall has been provided.
<input type="checkbox"/>	Details of other required SCM elements have been provided.
<input type="checkbox"/>	All supporting design calculations (including all applicable site design calculations and drainage area exhibits) have been provided.

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### III. PROFESSIONAL CERTIFICATION

Name: \_\_\_\_\_

Contact Email: \_\_\_\_\_

Contact Phone Number: \_\_\_\_\_

Professional Seal:



FOR REVIEW ONLY