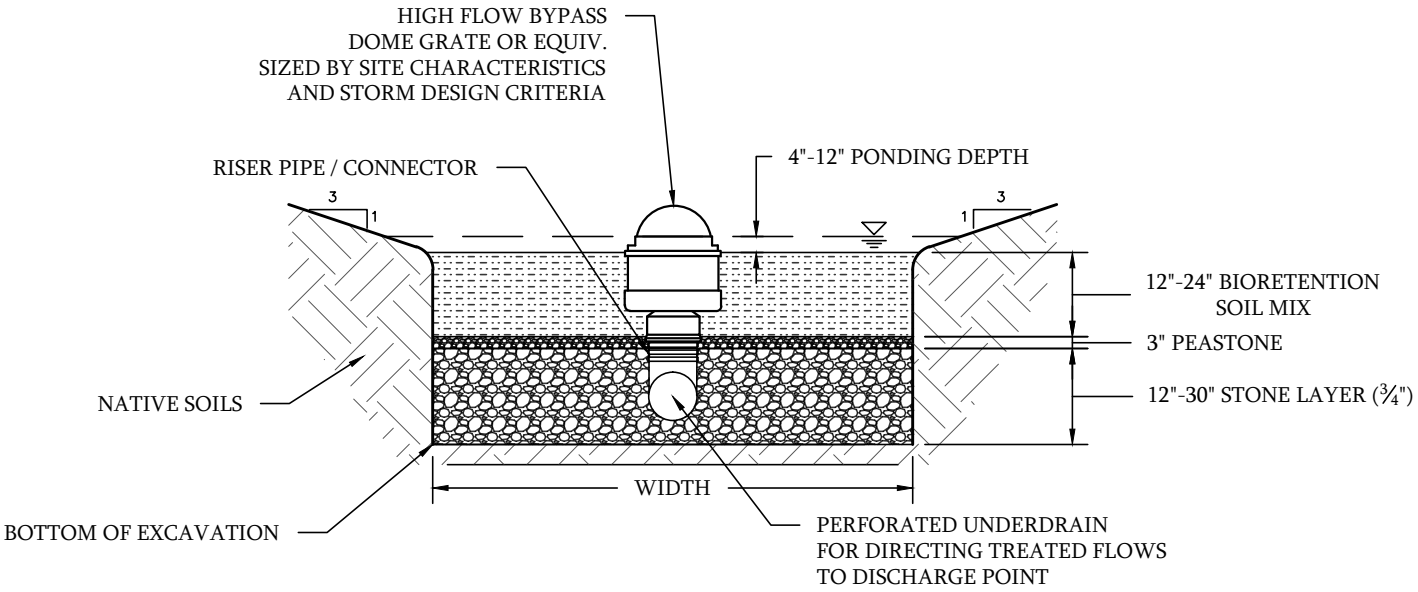
BIORETENTION SOIL MIX - PARTICLE SIZE DISTRIBUTION

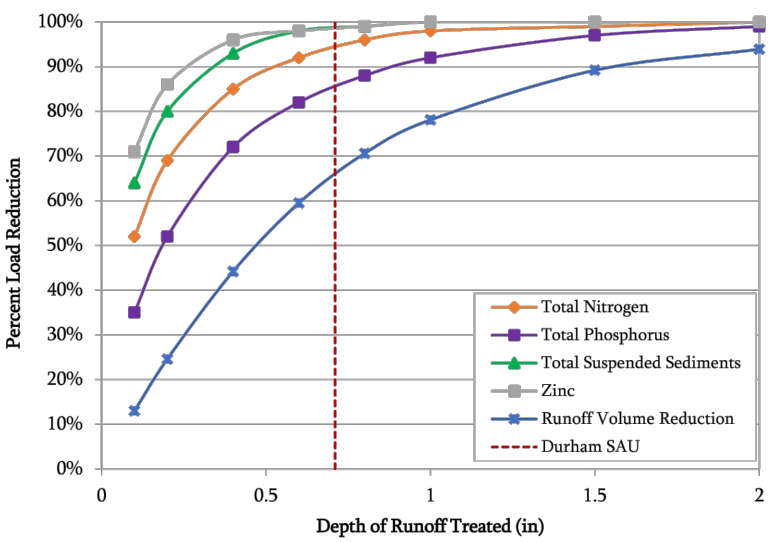
PSD Upper Limit		PSD Lower Limit	
Sieve #	% Passing	Sieve #	% Passing
4	100	4	100
10	95	10	95
40	40	40	15
200	20	200	15
>200	5	>200	5

GENERAL NOTES:

1. BIORETENTION SOIL MIX:
   a. 60% SAND
   b. 20% WOODCHIPS
   c. 20% TOPSOIL
2. DO NOT COMPACT SUBGRADE AT BOTTOM OF EXCAVATION
3. THIS DETAIL IS PROVIDED FOR GENERAL GUIDANCE. ACTUAL SYSTEM DESIGN BASED ON SPECIFIC SITE CHARACTERISTICS AND DESIGN CRITERIA.



Site Characteristics and System Treatment Capacity						Annual Removals (lbs/ac/yr)		
Municipality	Impervious Area (sf)	Impervious Area (acres)	Best Management Practice	Hydrologic Soil Group	Depth of Runoff Treated from Impervious Area (in)	Total Suspended Sediment	Total Phosphorus	Total Nitrogen
Durham ORCSD	23,958	0.55	Bioretention	D	0.71	332	0.83	7.3



Best Management Practice (from EPA Opti-Tool)	Storage Volume Cost ($/ft³)[1]	Cost ($/ft³) 2015 dollars[4]
Bioretention (includes Rain Garden)	$13.37 [2,3]	$14.63

[1] Includes 35% add on for engineering and contingencies

[2] Costs in 2010 dollars

[3] From UNHSC Cost Estimates

[4] Conversions made using U.S. Department of Labor Bureau of Labor Statistics consumer price index inflation calculator (2012)

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